

GenCore version 4.5
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OM protein - protein search, using sw model

Run on: June 25, 2001, 14:04:58 ; Search time 20.5 Seconds
(without alignments)
458.376 Million cell updates/sec

Title: US-09-612-921-4
Perfect score: 823
Sequence: 1 MYLSGALCFRKKDSALKVLY.....LPENGWNAPIITDFYQOCD 155

Scoring table: BIOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 412676 seqs, 60623988 residues

Total number of hits satisfying chosen parameters: 412676

Minimum DB seq length: 0
Maximum DB seq length: 200000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database :
1: /SID88/gcgcdata/geneseq/geneseqp/AA1980.DAT:*
2: /SID88/gcgcdata/geneseq/geneseqp/AA1981.DAT:*
3: /SID88/gcgcdata/geneseq/geneseqp/AA1982.DAT:*
4: /SID88/gcgcdata/geneseq/geneseqp/AA1983.DAT:*
5: /SID88/gcgcdata/geneseq/geneseqp/AA1984.DAT:*
6: /SID88/gcgcdata/geneseq/geneseqp/AA1985.DAT:*
7: /SID88/gcgcdata/geneseq/geneseqp/AA1986.DAT:*
8: /SID88/gcgcdata/geneseq/geneseqp/AA1987.DAT:*
9: /SID88/gcgcdata/geneseq/geneseqp/AA1988.DAT:*
10: /SID88/gcgcdata/geneseq/geneseqp/AA1989.DAT:*
11: /SID88/gcgcdata/geneseq/geneseqp/AA1990.DAT:*
12: /SID88/gcgcdata/geneseq/geneseqp/AA1991.DAT:*
13: /SID88/gcgcdata/geneseq/geneseqp/AA1992.DAT:*
14: /SID88/gcgcdata/geneseq/geneseqp/AA1993.DAT:*
15: /SID88/gcgcdata/geneseq/geneseqp/AA1994.DAT:*
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18: /SID88/gcgcdata/geneseq/geneseqp/AA1997.DAT:*
19: /SID88/gcgcdata/geneseq/geneseqp/AA1998.DAT:*
20: /SID88/gcgcdata/geneseq/geneseqp/AA1999.DAT:*
21: /SID88/gcgcdata/geneseq/geneseqp/AA2000.DAT:*
22: /SID88/gcgcdata/geneseq/geneseqp/AA2001.DAT:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	823	100.0	155	20	AAV28408 Human Interleukin
2	823	100.0	155	21	AAV96936 Human IL-1 recepto
3	823	100.0	155	21	AAV92257 Human IL-1 homolo
4	823	100.0	155	21	AAV45062 Human TANGO-93 pr
5	823	100.0	155	22	AAAB7601 Human PRO4342. Ho
6	823	100.0	155	22	AAAB35260 Human IL-1L1. Ho
7	823	100.0	155	22	AAAB35262 Interleukin-1L1 re
8	823	100.0	155	22	AAAB66664 Protein encoded by
9	820	99.6	155	20	AAV43526 A human Interleuk
10	818	99.4	154	22	AAAB35263 Interleukin-1L1 re
11	818	99.4	157	22	AAAB35264 Interleukin-1L1 re

12	816	99.1	155	21	AAV92256
13	812	98.7	155	21	AAV92254
14	805	97.8	155	21	AAV92253
15	805	97.8	155	21	AAV92255
16	734	89.2	155	21	AAV96937
17	734	89.2	155	22	AAAB35261
18	734	89.2	155	22	AAAB66672
19	734	89.2	155	22	AAAB48828
20	734	89.2	156	19	AAAB66284
21	734	89.2	156	20	AAV28407
22	734	89.2	156	21	AAV92260
23	734	89.2	156	21	AAV45061
24	522.5	63.5	104	22	AAAB35266
25	437	53.1	80	20	AAV43525
26	437	53.1	80	22	AAAB66663
27	430	51.0	94	21	AAV97068
28	398	48.4	98	21	AAV97067
29	324.5	39.4	159	16	AAV73642
30	319.5	38.8	152	13	AAV27495
31	319.5	38.8	152	14	AAV35486
32	319.5	38.8	153	18	AAV22894
33	319.5	38.8	153	19	AAV61149
34	319.5	38.8	153	22	AAV51302
35	319.5	38.8	159	12	AAV15262
36	319.5	38.8	159	19	AAV80777
37	319.5	38.8	159	19	AAV37787
38	319.5	38.8	159	20	AAV33275
39	319.5	38.8	159	20	AAV33277
40	319.5	38.8	159	20	AAV28287
41	319.5	38.8	159	20	AAV73946
42	319.5	38.8	159	20	AAV83008
43	319.5	38.8	159	21	AAV14829
44	319.5	38.8	159	22	AAAB66670
45	319.5	38.8	165	10	AAV93616

ALIGNMENTS

RESULT	1	
ID	AAV28408	standard; Protein; 155 AA.
AC	AAV28408:	
XX		
DF	28-SEP-1999	(first entry)
XX		
DE	Human Interleukin 1 delta.	
XX		
KW	Interleukin 1 delta; IL-1 delta; glaucoma; ectodermal dysplasia;	
KW	insulin-dependent diabetes mellitus; wrinkly skin syndrome;	
KW	T-cell leukemia; lymphoma; tibial muscular dystrophy.	
OS		
OS	Homo sapiens.	
PN	MO9935268-A1.	
PD	15-JUL-1999.	
XX		
PF	08-JAN-1999;	99WO-US00514.
XX		
PR	01-JUN-1998;	98US-0087393.
PR	09-JAN-1998;	98US-0071074.
PA	(IMVY) IMMUNEX CORP.	
PI		
XX	Sims JE;	
DR	WPI: 1999-458310/38.	
DR	N-PSDB; AAAB9432.	
XX		
PT	Murine and Human Interleukin 1 delta DNA, polypeptides and its	
	fragments, useful as molecular weight markers	

XX Claim 1; Page 68-69; 72pp; English.

The present sequence represents human interleukin 1 delta (IL-1 delta). IL-1 delta proteins are useful for the determination of the molecular weight of a sample protein. The protein and its fragments are useful as controls for peptide fragmentation. This is useful for determining the isoelectric point of a sample protein. Antibodies generated against IL-1 delta and its fragmented peptides can be used to enhance the accuracy of these molecular weight markers to determine the apparent molecular weight and isoelectric point of a sample protein. IL-1 delta can be used to screen for potential inhibitors of activity associated with IL-1 delta counter-structure molecules. IL-1 delta can also be used as therapeutic agents for the treatment of diseases mediated by IL-1 delta. IL-1 delta may be used as a reagent in studying the interleukin 1 (IL-1) signalling pathway, or as a reagent to block IL-1 signalling. The IL-1 delta coding sequences can be used to identify human chromosome 2, and to identify genes associated with certain diseases, especially with region 2q11-12, including glaucoma, ectodermal dysplasia, insulin-dependent diabetes mellitus, wrinkly skin syndrome, T-cell leukemia/lymphoma and tibial muscular dystrophy.

SQ Sequence 155 AA;

Query Match	100.0%;	Score 823;	DB 20;	Length 155;
Best Local Similarity	100.0%;	Pred. No. 1.2e-86;		
Matches 155;	Conservative 0;	Mismatches 0;	Indels 0;	Gaps 0

Oy	1	MVLSCALFFRKMSDKLTKVLYJHNNOLLAGGTHACKRVKGEISIVPWRNRDASLSPITLG	60
Dd	1	mvlsgalcffrmksdkltkvlyjhnnqlaggtthackrvkgeisivpwrnrdaaslspitlg	60
Oy	61	VQGSQCICSGVGQEPPTTLPEVNIMELYLGAKEKSFTPRRBMGLTSSFESANAPGR	120
Dd	61	vqgsqcicsgvgqeppttlpevnimelylgakessftprrbmgltsfsesanapgr	120
Oy	121	LCTVEADQPVRLTQLPENGGWNPATDEYFGQCD	155
Dd	121	lctveadqpvrlltqlpenggwmpatdeyfqqcd	155

RESULT 2

ID AAY96936 standard; protein; 155 AA.

AC AAY96936;

DT 31-OCT-2000 (first entry)

Human IL-1 receptor antagonist 3.

KM h11-13a human interleukin-1 receptor antagonist-3; IL-1p; osteopathia;
KM interleukin-1-like polypeptide; anti-inflammatory; anti-asthmatic;
KM anti-arthritis; antimicrobial; respiratory; anti-ischemic; vaccine;
KM dermatological; immunomodulatory; gastrointestinal; gene therapy.

OS Homo sapiens.

PN WO200039297-A2.

PD 06-JUL-2000.

PF 22-DEC-1999; 99WO-US30720.

PR 23-DEC-1998; 98US-0113430.

PR 13-APR-1999; 99US-0129122.

PA (GETH) GENENTECH INC.

PI Goddard A, Pan J;

DR WPI; 2000-452395/39.
DR N-PSDB; AAA51597.

PT Nucleic acids enc

PT Nucleic acids encoding interleukin-1-like polypeptides, useful for
PT preventing and treating e.g. inflammation, asthma and psoriasis
XX
PS Claim 22; Fig 7; 143pp; English.

CC An isolated nucleic acid molecule encoding an interleukin-1-like
CC polypeptide (IL-1p) that retains one or more activities of the peptide
CC from which it is derived such as the IL-18R binding activity of a human
CC interleukin-1 receptor antagonist-1 (IL-1Ra), polypeptide, is new. The
CC nucleic acid may be used in molecular engineering applications, e.g.
CC hybridization assays and chromosome and gene mapping studies, for
CC recombinantly producing the IL-1p polypeptide or for producing gene
CC knock out animals to study the role of the protein in metabolism and
CC disease processes (conversely, gene therapy protocols may be used to
CC supplement a patient's production of the polypeptide or to rectify
CC mutations that lead to the production of inactive peptides). The
CC peptides produced may be used to screen for and produce modulators (e.g.
CC antibodies) of IL-1p protein expression and activity which may be used
CC to treat disorders associated with inappropriate IL-1p expression and
CC activity such as inflammatory disorders, asthma, arthritis, stress
CC osteoarthritis, sepsis, acute lung injury, adult respiratory distress
CC syndrome, idiopathic pulmonary fibrosis, ischemic reperfusion disease,
CC psoriasis, graft versus host disease and/or inflammatory bowel disease.

SQ Sequence 155 AA

Query Match	100.0%;	Score 823;	DB 21;	Length 155;
Best Local Similarity	100.0%;	Pred. No. 1.2e-86;		
Matches 155;	Conservative 0;	Mismatches 0;	Indels 0;	Gaps 0;

QY	1	MVLSGALCFRRKDALVYLYHNHQLAGGHHGKVTKEISVPRRMVDAISPTLG	60
Db	1	mvsfsgalctfrrkdaLkvlylhnnglaaghhgkvtlkeeisvprrrvdaaispyllg	60
QY	61	VQGSQSLCSGVGEPEPLLTLEPVNIMELYLGAKKSKSFYTRDRMGITTSFESNAYRGMF	120
Db	61	vqgsqscslcsgvgepeplltlepvnimelylgakksksfctlytrdmglttsfesaaypgrfi	120
QY	121	LCVTPPADQPVRLTQLTEENGGMNAPITDEYFQOCD	155
Db	121	lctvpeadqpvrltqltenggmnapitdeyfqgcd	155

RESULT 3

ID AAY92257 standard; protein; 155 AA

AC AAY92257;

DT 10-AUG-2000 (first entry)

DE Human IL-1 homologue, hz111a3.

KM Generic interleukin-1; IL-1 homologue; zllaa3; anti-inflammatory;
KM antagonist; pro-inflammatory; agonist; immunomodulator; antiarthritic
KM antirheumatic; osteopathic; antispasmodic; antibacterial; cyostatic;
KM immunosuppressive; antidiabetic; antidiabetic; nephrotropic; vasotropic;
KM vulnerable.

OS Homo sapiens.

FH Key

ET

ET

ET

FT Peptide /label= loop
 FT 26..28 /label= beta-strand
 FT Peptide 29..40 /label= loop
 FT Peptide 41..47 /label= beta-strand
 FT Peptide 48..55 /label= loop
 FT Peptide 56..61 /label= beta-strand
 FT Peptide 62..65 /label= loop
 FT Peptide 66..71 /label= beta-strand
 FT Peptide 72..76 /label= loop
 FT Peptide 77..83 /label= beta-strand
 FT Peptide 84..98 /label= loop
 FT Peptide 99..105 /label= beta-strand
 FT Peptide 106..108 /label= loop
 FT Peptide 109..113 /label= beta-strand
 FT Peptide 111..115 /label= loop
 FT Peptide 114..118 /label= beta-strand
 FT Peptide 117..121 /label= loop
 FT Peptide 119..123 /label= conserved_motif
 FT Peptide 124..130 /label= beta-strand
 FT Peptide 130..134 /label= loop
 FT Peptide 131..133 /label= conserved_motif
 FT Peptide 134..148 /label= beta-strand
 FT Peptide 146..149 /label= loop
 FT Peptide 149..153 /label= conserved_motif
 FT Peptide /label= beta-strand
 PN WO200020595-A1.
 PD 13-APR-2000.
 PF 08-OCT-1999; 99WO-US3533.
 PR 08-OCT-1998; 98US-0169745.
 PA (ZYMO) ZYMOGENETICS INC.
 PI Sheppard PO, West RR, Clegg CH;
 DR WPI; 2000-303780/26.
 DR N-PSDB; AAA09193, AAA09194.
 XX
 PT Proteins useful for treatment of inflammatory conditions such as
 PT rheumatoid arthritis and psoriasis are agonists or antagonists forms of
 PT new interleukin-1 homologue
 XX
 PS Disclosure; Page 52-53; 64pp; English.
 XX
 CC This shows an interleukin-1 (IL-1) homologue, designated zllia3.
 CC It is believed that zllia3 acts through IL-1 receptors. In general,
 CC zllia3 proteins having a Lys residue at position 148 will have
 CC anti-inflammatory activity (e.g. AAY92256), whilst those having Asp

CC (see AAY92254) or Glu at this position will have pro-inflammatory
 CC action. Zllia3 is used to modulate an immune response in an animal
 CC (claimed). Antagonists zllia3 forms may be used to treat or prevent
 CC chronic inflammatory diseases such as rheumatoid arthritis,
 CC osteoarthritis and Lyme arthritis, psoriasis, to reduce tissue damage
 CC after ischemia, to treat septic shock, graft-versus-host disease and
 CC leukemia. The antagonists may also alleviate inflammatory bowel disease
 CC including Crohn's disease and ulcerative colitis, insulin-dependent
 CC diabetes mellitus, acute pancreatitis, glomerulonephritis and cerebral
 CC ischemia. Agonist forms of zllia3 may promote wound healing by IL-1
 CC effects on growth factor secretion and cell proliferation. They may also
 CC treat infections, especially gastrointestinal infections.
 CC
 SQ Sequence 155 AA;
 Query Match 100.0%; Score 823; DB 21; Length 155;
 Best Local Similarity 100.0%; Pred. No. 1.2e-86;
 Matches 155; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 QY 1 MVLISGALCFPMKDSALKVLTLLHNNQLLAGLHAGKVKIGKEISVPPRMKDAISPIYILG 60
 Db 1 mvlisgalcfmksdalkvlylhmqliaaglhaqkvikgeisvpprwldaslsplvg 60
 QY 61 VOGSSQCLSCGVGQEPYLTLEPVNIMELYGAKESKFTFYRRDMGTSFEESAAYPGWF 120
 Db 61 vqgssqclscgvqgepyletpepnimelygakeskftfrryrrdmgtstfesaaypgwf 120
 QY 121 LCTVPEADQPVRLTQLPENGGWNAPRTDYRQCD 155
 Db 121 lctvpeadqpvrltqlpenggwnaprtldfyfqqcd 155
 RESULT 4
 AAY45062 standard; Protein; 155 AA.
 ID AAY45062 standard; Protein; 155 AA.
 AC AAY45062;
 XX
 DT 31-MAY-2000 (first entry)
 DE Human TANGO-93 protein.
 XX
 KW TANGO-93; cytokine; human; secreted protein; IL-1 expression; cancer;
 KW interleukin-1 receptor antagonist; IL-1ra; inflammation; antiasthmatic;
 KW immunosuppressive; antirheumatic; antiarthritic; antipsoriatic; asthma;
 KW antiinflammatory; antibacterial; antitumor; cytostatic; immunomodulator;
 KW osteopathic; dermatological; antidiabetic; psoriasis; ulcerative colitis;
 KW graft vs-host disease; rheumatoid arthritis; inflammatory bowel disease;
 KW septic shock; cachexia; Crohn's disease; chronic myelogenous leukemia;
 KW liver disease; diabetes; osteoarthritis; Hodgkin's disease; Lyme disease;
 KW autoimmune disease; myasthenia gravis; pharmacogenomic; diagnosis;
 KW chromosome 2; systemic lupus erythematosus; forensic; transgenic animal.
 XX
 OS Homo sapiens.
 XX
 PN WO200008045-A2.
 PD 17-FEB-2000.
 PF 06-AUG-1999; 99WO-US17886.
 PR 07-AUG-1998; 98US-0131263.
 PA (MILL-) MILLENNIUM BIOTHERAPEUTICS INC.
 PI Pan Y;
 DR WPI; 2000-205669/18.
 DR N-PSDB; AA250812.
 XX
 PT Isolated nucleic acid sequences encoding TANGO-93 polypeptide useful
 PT for treating a variety of cellular processes e.g. asthma, rheumatoid

PT arthritis, psoriasis and autoimmune diseases -
XX
PS Claim 9; Fig 2; 113pp; English.
XX
CC The present sequence is the human TANGO-93, a secreted protein that
CC belongs to the cytokine superfamily. It plays a role similar to secreted
CC Interleukin-1 receptor antagonist (IL-1ra) and its expression is
CC developmentally regulated in the uterus, placenta and skeletal muscles.
CC Human TANGO-93 gene is mapped to chromosome 2 within the IL-1 cluster.
CC TANGO-93 modulates immune mediated inflammation and IL-1 gene or protein
CC expression. TANGO-93 is useful as a modulating agent for regulating
CC cellular processes like asthma, graft vs host disease, rheumatoid
CC arthritis, psoriasis, inflammatory bowel disease, septic shock,
CC ulcerative colitis, Crohn's disease, chronic myelogenous leukemia,
CC cancer, liver disease, Hodgkin's disease, osteoarthritis, Lyme disease,
CC cachexia, and autoimmune diseases e.g. myasthenia gravis, autoimmune
CC diabetes and systemic lupus erythematosus. Partial TANGO-93 sequences
CC are useful in forensic biology, for diagnostic and prognostic assays,
CC prophylactic and therapeutic treatment and pharmacogenomics. The DNA
CC sequences are useful as hybridisation probes and primers, for isolation
CC of TANGO-93 sequence and for the creation of transgenic animals.
XX
SQ Sequence 155 AA:

Query Match 100.0%; Score 823; DB 21; Length 155;
Best Local Similarity 100.0%; Pred. No. 1.2e-86;
Matches 155; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MVLGALCFRMDSAKVIYLNHNNOLLAGLHAGKVIKGEISVVPNRWLDASLSPVILG 60
Db 1 mvlsgalcfrmdsalkvilylnhnnllagglhagkvikgeisvvpnrwldaslsplvllg 60

QY 61 VOGSGQCLSCGVGQEPFTLTLEPVNIMELYLGAKEKSKFTFYRRDMGLTSSFESAAYPGWF 120
Db 61 vogsqclscgvqgepftltlepvnimelylgakeskstfgyrrdmgltsfesaaypgwf 120

QY 121 LCTVPADQPVRLTQLPENGWNNAPITDFTYFOQCD 155
Db 121 lctvpadqpvrltqlpengwnnapitdftfyqcd 155

RESULT 5
AAB87601
ID AAB87601 standard; Protein; 155 AA.
XX
AC AAB87601;
XX
DT 15-MAY-2001 (first entry).
XX
DE Human PRO4342.
XX
KW Human; PRO protein; mapping.
XX
OS Homo sapiens.
XX
PN WO200116318-A2.
XX
PD 08-MAR-2001.
XX
PF 24-AUG-2000; 2000WO-US23328.
XX
PR 01-SEP-1999; 99WO-US20111.
XX
PR 15-SEP-1999; 99WO-US21090.
XX
PR 07-DEC-1999; 99US-0169495.
XX
PR 09-DEC-1999; 99US-0170262.
XX
PR 11-JAN-2000; 2000US-0175481.
XX
PR 18-FEB-2000; 2000WO-US04341.
XX
PR 18-FEB-2000; 2000WO-US04342.
XX
PR 22-FEB-2000; 2000WO-US04414.
XX
PR 01-MAR-2000; 2000WO-US05601.
XX
PR 03-MAR-2000; 2000US-0187202.
XX
PR 25-APR-2000; 2000US-0199397.

PR 22-MAY-2000; 2000WO-US14042.
XX
PR 05-JUN-2000; 2000US-0209832.
XX
PA (GERTH) GENENTECH INC.
XX
XX Eaton DL, Filvaroff E, Gerritsen ME, Goddard A, Godowski PJ;
PI Grimaldi CJ, Gunney AL, Watanabe CK, Wood WT;
DR WPI; 2001-183260/18.
XX
DR N-PSDB; AAP92133.
XX
PT Eighty four nucleic acids encoding PRO polypeptides, useful in
PT molecular biology, including use as hybridization probes, and in
PT chromosome and gene mapping.
XX
PS Claim 12; Fig 152; 278pp; English.
XX
CC The present sequence is a human PRO polypeptide (secreted and
CC transmembrane). The PRO protein, and PRO agonists, PRO antagonists or
CC anti-PRO antibodies are useful for preparation of a medicament useful in
CC the treatment of a condition which is responsive to the PRO protein,
CC agonists, antagonists or anti-PRO antibodies. The PRO protein may also be
CC employed as molecular weight markers for protein electrophoresis. The PRO
CC coding sequence has applications in molecular biology, including use as
CC hybridisation probes, and in chromosome and gene mapping.
XX
SQ Sequence 155 AA:

Query Match 100.0%; Score 823; DB 22; Length 155;
Best Local Similarity 100.0%; Pred. No. 1.2e-86;
Matches 155; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MVLGALCFRMDSAKVIYLNHNNOLLAGLHAGKVIKGEISVVPNRWLDASLSPVILG 60
Db 1 mvlsgalcfrmdsalkvilylnhnnllagglhagkvikgeisvvpnrwldaslsplvllg 60

QY 61 VOGSGQCLSCGVGQEPFTLTLEPVNIMELYLGAKEKSKFTFYRRDMGLTSSFESAAYPGWF 120
Db 61 vogsqclscgvqgepftltlepvnimelylgakeskstfgyrrdmgltsfesaaypgwf 120

QY 121 LCTVPADQPVRLTQLPENGWNNAPITDFTYFOQCD 155
Db 121 lctvpadqpvrltqlpengwnnapitdftfyqcd 155

RESULT 6
AAB35260
ID AAB35260 standard; Protein; 155 AA.
XX
AC AAB35260;
XX
DT 08-MAY-2001 (first entry)
XX
DE Human IL-1L1.
XX
KW Human; IL-1L1; Interleukin-1 locus; IL-1beta; IL-1receptor; psoriasis;
KW chromosome 2q13; inflammatory disease; heart disease; Graves' disease;
KW rheumatoid arthritis; inflammatory bowel disorder; diabetes; cancer;
KW osteoporosis; systemic lupus erythematosus.
XX
OS Homo sapiens.
XX
PN WO200105974-A2.
XX
PD 25-JAN-2001.
XX
PF 17-JUL-2000; 2000WO-US19508.
XX
XX 16-JUL-1999; 99US-0144298.
XX
PA (INTE-) INTERLEUKIN GENETICS INC.

PI Nicklin M, Barton J;
 XX
 DR WPI: 2001-091974/10.
 XX
 PT Nucleic acids encoding human and murine interleukin-1L1 polypeptides
 PT useful for controlling inflammatory processes -
 XX
 PS Claim 11; Fig 3; 150pp; English.
 CC
 CC The present invention provides the protein and coding sequences of the
 CC human and murine interleukin-1L1 (IL-1L1) proteins. The IL-1L1 gene is
 CC located between the IL-1beta and IL-1receptor genes at human chromosome
 CC 2q13. The sequences are useful in the diagnosis, prevention and treatment
 CC of heart disease, cancer and inflammatory diseases such as rheumatoid
 CC arthritis, systemic lupus erythematosus, inflammatory bowel disorder,
 CC diabetes, psoriasis, osteoporosis, lichen sclerosis, ulcerative colitis,
 CC severe periodontal disease and pregnancy complications. The present
 CC sequence is the human IL-1L1 protein.
 XX
 SQ Sequence 155 AA;

Query Match 100.0%; Score 823; DB 22; Length 155;
 Best Local Similarity 100.0%; Pred. No. 1.2e-86;
 Matches 155; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 QY 1 MVLGALCFRMDKSAIKVLYLHNNQLAGLHAGKVIKGEISVPPNRMLDASLSPVILG 60
 DB 1 mvlsgalcfrmkdsalkvlylhnnqlagllhagkvikgeisvppnrwldaslsplvllg 60
 QY 61 VGGSGCCLSCGVGQEPPTLTLEPVNIMELYGAKESKSFYFRDMGLTSSFESAAYPGWF 120
 DB 61 vggsgcclscgvqgeptltlepvnimelygakeskstfyrddmgltssfsesaaypgwf 120
 QY 121 LCTVPEADQPVRLTQLPENGWNAPIITDFEFOCCD 155
 DB 121 lctvpeadqpvrltqlpengwnapitdfyfqqcd 155

RESULT 7
 AAB35262
 ID AAB35262 standard; protein; 155 AA.
 AC AAB35262;
 XX
 DT 08-MAY-2001 (first entry)
 XX
 DE Interleukin-1L1 recombinant protein #1.
 XX
 KW Mouse; IL-1L1; interleukin-1 locus; IL-1beta; IL-1receptor; psoriasis;
 KW chromosome 2q13; inflammatory disease; heart disease; Graves' disease;
 KW rheumatoid arthritis; inflammatory bowel disorder; diabetes; cancer;
 KW osteoporosis; systemic lupus erythematosus; human.
 XX
 OS Unidentified.
 XX
 PN WO200105974-A2.
 XX
 PD 25-JAN-2001.
 XX
 PF 17-JUL-2000; 2000WO-US19508.
 XX
 PR 16-JUL-1999; 99US-0144298.
 XX
 PA (INTE-) INTERLEUKIN GENETICS INC.
 XX
 PI Nicklin M, Barton J;
 XX
 PT WPI: 2001-091974/10.
 XX
 DR Nucleic acids encoding human and murine interleukin-1L1 polypeptides
 PT useful for controlling inflammatory processes -
 XX

PS Examples; Fig 6; 150pp; English.
 XX
 CC The present invention provides the protein and coding sequences of the
 CC human and murine interleukin-1L1 (IL-1L1) proteins. The IL-1L1 gene is
 CC located between the IL-1beta and IL-1receptor genes at human chromosome
 CC 2q13. The sequences are useful in the diagnosis, prevention and treatment
 CC of heart disease, cancer and inflammatory diseases such as rheumatoid
 CC arthritis, systemic lupus erythematosus, inflammatory bowel disorder,
 CC diabetes, psoriasis, osteoporosis, lichen sclerosis, ulcerative colitis,
 CC severe periodontal disease and pregnancy complications. The present
 CC sequence is a recombinant IL-1L1 protein.
 XX
 SQ Sequence 155 AA;

Query Match 100.0%; Score 823; DB 22; Length 155;
 Best Local Similarity 100.0%; Pred. No. 1.2e-86;
 Matches 155; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 QY 1 MVLGALCFRMDKSAIKVLYLHNNQLAGLHAGKVIKGEISVPPNRMLDASLSPVILG 60
 DB 1 mvlsgalcfrmkdsalkvlylhnnqlagllhagkvikgeisvppnrwldaslsplvllg 60
 QY 61 VGGSGCCLSCGVGQEPPTLTLEPVNIMELYGAKESKSFYFRDMGLTSSFESAAYPGWF 120
 DB 61 vggsgcclscgvqgeptltlepvnimelygakeskstfyrddmgltssfsesaaypgwf 120
 QY 121 LCTVPEADQPVRLTQLPENGWNAPIITDFEFOCCD 155
 DB 121 lctvpeadqpvrltqlpengwnapitdfyfqqcd 155

RESULT 8
 AAB66664
 ID AAB66664 standard; protein; 155 AA.
 AC AAB66664;
 XX
 DT 05-APR-2001 (first entry)
 XX
 DE Protein encoded by extended B2HFLS20W cDNA library sequence #2.
 XX
 KW Interleukin; IL-1 receptor; cancer; inflammation.
 XX
 OS Homo sapiens.
 XX
 PN WO200102571-A2.
 XX
 PD 11-JAN-2001.
 XX
 PF 07-JUL-2000; 2000WO-US18710.
 XX
 PR 07-JUL-1999; 99US-0348942.
 PR 13-OCT-1999; 99US-0417455.
 PR 08-DEC-1999; 99US-0457626.
 PR 10-MAR-2000; 2000US-0523552.
 PR 22-MAY-2000; 2000US-0576008.
 XX
 PA (HYSE-) HYSEQ INC.
 XX
 PI Ford J, Pace A;
 XX
 PT WPI: 2001-071582/08.
 XX
 DR Isolated nucleic acids encoding interleukin-1 (IL-1) receptor
 XX PT antagonist proteins (referred as IL-1Hy1), useful in the treatment of
 XX cancer, e.g. breast adenocarcinoma and brain tumors, and an
 XX inflammatory disease mediated by IL-18 -
 XX
 PS Claim 1; Fig 6; 179pp; English.
 XX
 CC The present invention relates to interleukin (IL)-1 receptor
 CC antagonist proteins. IL-1Hy1 is useful for treating cancer,
 CC

CC an inflammatory disease mediated by IL-18, inflammation
CC resulting from infection or allergic reactions, and inflammation
CC associated with chronic bronchitis, arthritis, diabetes or
CC endothermia.
XX
SQ Sequence 155 AA:

Query Match 100.0%; Score 823; DB 22; Length 155;
Best Local Similarity 100.0%; Pred. No. 1.2e-86;
Matches 155: Conservative 0; Mismatches 0; Indels 0; Gaps 0;

OY 1 MVLGALCFRMDALKVLYLHNNQLAGLHAGVKYKEEISVVPNRWLDSLSPVILG 60
DB 1 MVLGALCFRMDALKVLYLHNNQLAGLHAGVKYKEEISVVPNRWLDSLSPVILG 60
OY 61 VGGSGCISCVGQEPPTLLEPVNIMELTGAKESKSPFFRRDGLTSSFSAAYPGWF 120
DB 61 VGGSGCISCVGQEPPTLLEPVNIMELTGAKESKSPFFRRDGLTSSFSAAYPGWF 120
OY 121 LCTVPEADQPVRLTQLPENGGMNAPITDPYFOQCD 155
DB 121 LCTVPEADQPVRLTQLPENGGMNAPITDPYFOQCD 155

RESULT 9

AAV43526 standard; Protein: 155 AA.

AAV43526;

26-JAN-2000 (first entry)

A human interleukin-1 receptor antagonist.

Human: interleukin-1 receptor; IL-1; antagonist; sepsis;
acute pancreatitis; endotoxic shock; cytokine induced shock;
rheumatoid arthritis; chronic inflammatory arthritis;
pancreatic cell damage; diabetes mellitus type 1;
graft versus host disease; inflammatory bowel disease;
inflammation; pulmonary disease; autoimmune disease;
inflammatory disease; antiproliferative; myelogenous leukemia;
premature labor; intrauterine infection; nutritional activity;
hematopoiesis regulating activity; tissue growth activity;
activin activity; inhibin activity; chemotactic activity;
chemokinetic activity; hemostatic activity; thrombolytic activity;
anti-inflammatory activity.

Homo sapiens.

WO9951744-A2.

14-OCT-1999.

05-APR-1999; 99WO-US04291.

03-APR-1998; 98US-0055010.

15-MAY-1998; 98US-0079909.

20-MAY-1998; 98US-0082364.

19-JUN-1998; 98US-0099818.

31-JUL-1998; 98US-0127698.

13-JAN-1999; 99US-0229591.

17-FEB-1999; 99US-0251370.

(HYSE-) HYSEQ INC.

Drimanac R, Crkvenjakov R, Dickson M, Drimanac S, Labat I;
Leshkowitz D, Kita D, Ford J, Pace A, Alfemito M;
WPI, 1999-611042/52.
N-PSDB; AA230050.
New isolated interleukin-1 receptor binding polypeptides, used to treat

PT e.g. sepsis, shock, arthritis, pancreatitis, graft-versus-host disease,
PT inflammatory disease, autoimmune disease or proliferative disease
XX
PS Claim 8; Fig 6; 123pp; English.

CC The present sequence represents a human interleukin-1 (IL-1)
CC receptor antagonist. The polypeptide is capable of binding IL-1
CC receptors (IL-1Rs). The polynucleotides and polypeptides can be used for
CC the prevention or treatment of disorders involving sepsis, acute
CC pancreatitis, endotoxic shock, cytokine induced shock, rheumatoid
CC arthritis, chronic inflammatory arthritis, pancreatic cell damage from
CC diabetes mellitus type 1, graft versus host disease, inflammatory bowel
CC disease, inflammation associated with pulmonary disease, other autoimmune
CC disease or inflammatory disease, an antiproliferative agent such as for
CC acute or chronic myelogenous leukemia or in the prevention of premature
CC labor secondary to intrauterine infections. They can also exhibit
CC activities such as e.g. nutritional activity, cytokine and cell
CC proliferation/differentiation activity, immune stimulating or
CC suppressing activity, hematopoiesis regulating activity, tissue growth
CC activity, activin/inhibin activity, chemotactic/chemokinetic activity,
CC hemostatic and thrombolytic activity, receptor/ligand activity, and
CC anti-inflammatory activity. The products can also be used for
CC detection, diagnosis and drug screening.

Sequence 155 AA:

Query Match 99.6%; Score 820; DB 20; Length 155;
Best Local Similarity 99.4%; Pred. No. 2.7e-86;

Matches 154: Conservative 1; Mismatches 0; Indels 0; Gaps 0;

OY 1 MVLGALCFRMDALKVLYLHNNQLAGLHAGVKYKEEISVVPNRWLDSLSPVILG 60
DB 1 MVLGALCFRMDALKVLYLHNNQLAGLHAGVKYKEEISVVPNRWLDSLSPVILG 60
OY 61 VGGSGCISCVGQEPPTLLEPVNIMELTGAKESKSPFFRRDGLTSSFSAAYPGWF 120
DB 61 VGGSGCISCVGQEPPTLLEPVNIMELTGAKESKSPFFRRDGLTSSFSAAYPGWF 120
OY 121 LCTVPEADQPVRLTQLPENGGMNAPITDPYFOQCD 155
DB 121 LCTVPEADQPVRLTQLPENGGMNAPITDPYFOQCD 155

RESULT 10

AAB35263 standard; Protein: 154 AA.

AAB35263;

08-MAY-2001 (first entry)

Interleukin-1L1 recombinant protein #2.

Mouse: IL-1L1; interleukin-1 locus; IL-1beta; IL-1receptor; psoriasis;
chromosome 2q13; inflammatory disease; heart disease; Graves' disease;
rheumatoid arthritis; inflammatory bowel disorder; diabetes; cancer;
osteoporosis; systemic lupus erythematosus; human.

Unidentified.

WO200105974-A2.

25-JAN-2001.

17-JUL-2000; 2000WO-US19508.

16-JUL-1999; 99US-0144298.

(INTE-) INTERLEUKIN GENETICS INC.

Nicklin M, Barton J;

DR WPI; 2001-091974/10.
 XX Nucleic acids encoding human and murine interleukin-11L polypeptides
 PT useful for controlling inflammatory processes -
 XX
 PS Examples: Fig 6; 150pp; English.
 CC The present invention provides the protein and coding sequences of the
 CC human and murine interleukin-11L (IL-11L) proteins. The IL-11L gene is
 CC located between the IL-1beta and IL-1receptor genes at human chromosome
 CC 2q13. The sequences are useful in the diagnosis, prevention and treatment
 CC of heart disease, cancer and inflammatory diseases such as rheumatoid
 CC arthritis, systemic lupus erythematosus, inflammatory bowel disorder,
 CC diabetes, psoriasis, osteoporosis, lichen sclerosis, ulcerative colitis,
 CC severe periodontal disease and pregnancy complications. The present
 CC sequence is a recombinant IL-11L protein.
 CC
 SQ Sequence 154 AA:
 Query Match 99.4%; Score 818; DB 22; Length 154;
 Best Local Similarity 100.0%; Pred. No. 4.5e-86;
 Matches 154; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 QY 2 VLSGALCFRMDKDALKLYLHNNQLAGLHAGKVKIGEEISVVPNRMWDASLSPVILGV 61
 DB 1 VLSGALCFRMDKDALKLYLHNNQLAGLHAGKVKIGEEISVVPNRMWDASLSPVILGV 60
 QY 62 QGSGGCLSCGCGEPRTLLEPVNIMELYLGAKEKSTFFRRDMGLTSSPESAAAYGFWL 121
 DB 61 99SGGCLSCGCGEPRTLLEPVNIMELYLGAKEKSTFFRRDMGLTSSPESAAAYGFWL 120
 QY 122 CTVPEDQPVRLTQLPENGMNAPITDFYPOQCD 155
 DB 121 ctvpedqpvrltqlpengwnapitdfyfqqcd 154
 RESULT 11
 AAB35264
 ID AAB35264 standard; Protein; 157 AA.
 AC AAB35264;
 DT 08-MAY-2001 (first entry)
 XX
 DE Interleukin-11L recombinant protein #3.
 XX
 KW Mouse; IL-11L; interleukin-1 locus; IL-1beta; IL-1receptor; psoriasis;
 KW chromosome 2q13; inflammatory disease; heart disease; Graves' disease;
 KW rheumatoid arthritis; inflammatory bowel disorder; diabetes; cancer;
 KW osteoporosis; systemic lupus erythematosus; human.
 XX
 OS Unidentified.
 XX
 WO200105974-A2.
 PN
 XX
 PD 25-JAN-2001.
 XX
 PF 17-JUL-2000; 2000WO-US19508.
 XX
 PR 16-JUL-1999; 99US-0144298.
 XX
 PA (INTE-) INTERLEUKIN GENETICS INC.
 XX
 PI Nicklin M, Barton J;
 XX
 DR WPI; 2001-091974/10.
 XX
 PT Nucleic acids encoding human and murine interleukin-11L polypeptides
 PT useful for controlling inflammatory processes -
 XX
 PS Examples: Fig 6; 150pp; English.
 XX

CC The present invention provides the protein and coding sequences of the
 CC human and murine interleukin-11L (IL-11L) proteins. The IL-11L gene is
 CC located between the IL-1beta and IL-1receptor genes at human chromosome
 CC 2q13. The sequences are useful in the diagnosis, prevention and treatment
 CC of heart disease, cancer and inflammatory diseases such as rheumatoid
 CC arthritis, systemic lupus erythematosus, inflammatory bowel disorder,
 CC diabetes, psoriasis, osteoporosis, lichen sclerosis, ulcerative colitis,
 CC severe periodontal disease and pregnancy complications. The present
 CC sequence is a recombinant IL-11L protein.
 CC
 SQ Sequence 157 AA:
 Query Match 99.4%; Score 818; DB 22; Length 157;
 Best Local Similarity 100.0%; Pred. No. 4.6e-86;
 Matches 154; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 QY 2 VLSGALCFRMDKDALKLYLHNNQLAGLHAGKVKIGEEISVVPNRMWDASLSPVILGV 61
 DB 4 VLSGALCFRMDKDALKLYLHNNQLAGLHAGKVKIGEEISVVPNRMWDASLSPVILGV 63
 QY 62 QGSGGCLSCGCGEPRTLLEPVNIMELYLGAKEKSTFFRRDMGLTSSPESAAAYGFWL 121
 DB 64 99SGGCLSCGCGEPRTLLEPVNIMELYLGAKEKSTFFRRDMGLTSSPESAAAYGFWL 123
 QY 122 CTVPEDQPVRLTQLPENGMNAPITDFYPOQCD 155
 DB 124 ctvpedqpvrltqlpengwnapitdfyfqqcd 157
 RESULT 12
 AAY92256
 ID AAY92256 standard; Protein; 155 AA.
 AC AAY92256;
 DT 10-AUG-2000 (first entry)
 XX
 DE Human IL-1 homologue, hz11a3-K148.
 XX
 KW Generic; interleukin-1; IL-1; homologue; z11a3; anti-inflammatory;
 KW antagonist; pro-inflammatory; agonist; immunomodulator; antiarthritic;
 KW immunohematologic; osteopathic; antipsoriatic; antibacterial; cytostatic;
 KW immunosuppressive; antidiabetic; antidiabetic; nephroretropic; vasotropic;
 KW vulnerable.
 XX
 OS Homo sapiens.
 XX
 PN WO200020595-A1.
 XX
 PD 13-APR-2000.
 XX
 PF 08-OCT-1999; 99WO-US23533.
 XX
 PR 08-OCT-1998; 98US-0169745.
 XX
 PA (ZYMO) ZYMOGENETICS INC.
 XX
 PI Sheppard PO, West RR, Clegg CH;
 XX
 DR WPI; 2000-303780/26.
 XX
 DR N-PSDB; AAA09195.
 XX
 PT Proteins useful for treatment of inflammatory conditions such as
 PT rheumatoid arthritis and psoriasis are agonists or antagonists forms of
 PT new interleukin-1 homologue
 XX
 PS Claim 4; Page 56-57; 64pp; English.
 XX
 CC This polypeptide is variant interleukin-1 (IL-1) homologue, designated
 CC z11a3-K148. It is believed that z11a3 acts through IL-1 receptors.
 CC In general, z11a3 proteins having a Lys residue at position 148 will
 CC have anti-inflammatory activity, whilst those having Asp (see AAY92254)

CC or Glu at this position will have pro-inflammatory action.
 CC zll1a3 is used to modulate an immune response in an animal (claimed).
 CC Antagonists zll1a3 forms may be used to treat or prevent chronic
 CC inflammatory diseases such as rheumatoid arthritis, osteoarthritis and
 CC Lyme arthritis, psoriasis, to reduce tissue damage after ischemia, to
 CC treat septic shock, graft-versus-host disease and leukemia.
 CC The antagonists may also alleviate inflammatory bowel disease including
 CC Crohn's disease and ulcerative colitis, insulin-dependent diabetes
 CC mellitus, acute pancreatitis, glomerulonephritis and cerebral ischemia.
 CC Agonist forms of zll1a3 may promote wound healing by IL-1 effects on
 CC growth factor secretion and cell proliferation. They may also treat
 CC infections, especially gastrointestinal infections.

XX Sequence 155 AA:

Query Match 99.1%; Score 816; DB 21; Length 155;
 Best Local Similarity 99.4%; Pred. No. 7.6e-86;
 Matches 154; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

OY 1 MYLSGALCFRMDALVKVLYLHNQLLAGLHAGVKYKGEISVVPNRMLDASLSPVILG 60
 DB 1 MYLSGALCFRMDALVKVLYLHNQLLAGLHAGVKYKGEISVVPNRMLDASLSPVILG 60
 OY 61 VGGSGCSCGCGOEPPTLLEPVNIMELYLGAKESKSFYRRDGLTSSPESAAVPGMF 120
 DB 61 VGGSGCSCGCGOEPPTLLEPVNIMELYLGAKESKSFYRRDGLTSSPESAAVPGMF 120
 OY 121 LCTVPEADQPVRLTOLPENGGMNAPITDFYFOCCD 155
 DB 121 LCTVPEADQPVRLTOLPENGGMNAPITDFYFOCCD 155

RESULT 13

AA92254
 ID AAY92254 standard; protein: 155 AA.

AC AAY92254;

DT 10-AUG-2000 (first entry)

DE Human IL-1 homologue, hzll1a3-D148.

XX Generic: interleukin-1; IL-1; homologue; zll1a3; anti-inflammatory;
 KW antagonist; pro-inflammatory; agonist; immunomodulator; antiarthritic;
 KW antirheumatic; osteopathic; antipsoriatic; antibacterial; cyostatic;
 KW immunosuppressive; antidiabetic; antidiabetic; nephrotropic; vasotropic;
 KW vulnary.

OS Homo sapiens.

XX Key Location/Qualifiers

FT Misc-difference 41 /label= Glu, Lys

FT Misc-difference 99 /label= Ala, Ile, Thr

PN WO200020595-A1.

PD 13-APR-2000.

PF 08-OCT-1999; 99WO-US23533.

PR 08-OCT-1998; 98US-0169745.

PA (ZYMO) ZYMOGENETICS INC.

PI Sheppard PO, West RR, Clegg CH;

DR WPI; 2000-303780/26.

XX Proteins useful for treatment of inflammatory conditions such as
 PT rheumatoid arthritis and psoriasis are agonists or antagonists forms of

PT new interleukin-1 homologue
 XX Claim 2: Page 7; 64pp; English.

CC This is a generic interleukin-1 (IL-1) homologue, designated zll1a3.
 CC It is believed that zll1a3 acts through IL-1 receptors. In general,
 CC zll1a3 proteins having a Lys residue at position 148 (see AAY92255 and
 CC AAY92256) will have anti-inflammatory activity, whilst those having Asp
 CC (i.e. this sequence) or Glu at this position will have pro-inflammatory
 CC action. zll1a3 is used to modulate an immune response in an animal
 CC (claimed). Antagonists zll1a3 forms may be used to treat or prevent
 CC chronic inflammatory diseases such as rheumatoid arthritis,
 CC osteoarthritis and Lyme arthritis, psoriasis, to reduce tissue damage
 CC after ischemia, to treat septic shock, graft-versus-host disease and
 CC leukemia. The antagonists may also alleviate inflammatory bowel disease
 CC including Crohn's disease and ulcerative colitis, insulin-dependent
 CC diabetes mellitus, acute pancreatitis, glomerulonephritis and cerebral
 CC ischemia. Agonist forms of zll1a3 may promote wound healing by IL-1
 CC effects on growth factor secretion and cell proliferation. They may
 CC also treat infections, especially gastrointestinal infections.
 CC Note: This sequence is not given in the specification, it is created
 CC from SEQ. ID. 7, which is given on pages 55-56.

XX Sequence 155 AA:

Query Match 98.7%; Score 812; DB 21; Length 155;
 Best Local Similarity 98.7%; Pred. No. 2.2e-85;
 Matches 153; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

OY 1 MYLSGALCFRMDALVKVLYLHNQLLAGLHAGVKYKGEISVVPNRMLDASLSPVILG 60
 DB 1 MYLSGALCFRMDALVKVLYLHNQLLAGLHAGVKYKGEISVVPNRMLDASLSPVILG 60
 OY 61 VGGSGCSCGCGOEPPTLLEPVNIMELYLGAKESKSFYRRDGLTSSPESAAVPGMF 120
 DB 61 VGGSGCSCGCGOEPPTLLEPVNIMELYLGAKESKSFYRRDGLTSSPESAAVPGMF 120
 OY 121 LCTVPEADQPVRLTOLPENGGMNAPITDFYFOCCD 155
 DB 121 LCTVPEADQPVRLTOLPENGGMNAPITDFYFOCCD 155

RESULT 14

AA92253
 ID AAY92253 standard; protein: 155 AA.

AC AAY92253;

DT 10-AUG-2000 (first entry)

DE Generic human IL-1 homologue, hzll1a3-X148.

XX Generic: interleukin-1; IL-1; homologue; zll1a3; anti-inflammatory;
 KW antagonist; pro-inflammatory; agonist; immunomodulator; antiarthritic;
 KW antirheumatic; osteopathic; antipsoriatic; antibacterial; cyostatic;
 KW immunosuppressive; antidiabetic; antidiabetic; nephrotropic; vasotropic;
 KW vulnary.

OS Homo sapiens.

XX Key Location/Qualifiers

FT Misc-difference 41 /label= Glu, Lys

FT Misc-difference 99 /label= Ala, Ile, Thr

FT Misc-difference 148 /label= Glu, Lys, Asp

PN WO200020595-A1.

PD 13-APR-2000.

PF 08-OCT-1999; 99MO-US23533.
 XX
 XX 08-OCT-1998; 98US-0169745.
 PR
 PA (ZYMO) ZYMOGENETICS INC.
 XX
 XX Sheppard PO, West RR, Clegg CH;
 PI
 DR WPI; 2000-303780/26.
 XX
 XX
 PT Proteins useful for treatment of inflammatory conditions such as
 PT rheumatoid arthritis and psoriasis are agonists or antagonists forms of
 PT new interleukin-1 homologue
 PS
 XX
 XX Claim 1; Page 55-56; 64pp; English.
 CC This polypeptide is a generic interleukin-1 (IL-1) homologue, designated
 CC zllia3. It is believed that zllia3 acts through IL-1 receptors. In
 CC general, zllia3 proteins having a Lys residue at position 148 (see
 CC AAY92255 and AAY92256) will have anti-inflammatory activity, whilst those
 CC having Asp (see AAY92254) or Glu at this position will have
 CC pro-inflammatory action. zllia3 is used to modulate an immune response in
 CC an animal (claimed). Antagonists zllia3 forms may be used to treat or
 CC prevent chronic inflammatory diseases such as rheumatoid arthritis,
 CC osteoarthritis and Lyme arthritis, psoriasis, to reduce tissue damage
 CC after ischemia, to treat septic shock, graft-versus-host disease and
 CC leukemia. The antagonists may also alleviate inflammatory bowel disease
 CC including Crohn's disease and ulcerative colitis, insulin-dependent
 CC diabetes mellitus, acute pancreatitis, glomerulonephritis and cerebral
 CC ischemia. Agonist forms of zllia3 may promote wound healing by IL-1
 CC effects on growth factor secretion and cell proliferation. They may also
 CC treat infections, especially gastrointestinal infections.
 CC
 XX
 XX Sequence 155 AA:
 SQ
 Query Match 97.8%; Score 805; DB 21; Length 155;
 Best Local Similarity 98.1%; Pred. No. 1.4e-84;
 Matches 152; Conservative 0; Mismatches 3; Indels 0; Gaps 0;
 QY 1 MVLSCALCFPMKDSALKVLTLLHNNOLLAGLHAGKVIKGEISVVPNRWLDASISPYILG 60
 Db 1 mvlsgalcfrmkdsalkvlylhmqlaaglhagkvkgeisvvpnrwldasispvllg 60
 QY 61 VGGSGQCLSCGVGOEPTLTLEPVNIMELYGAKESKSFYRRDMGLTSSFESAAYPGWF 120
 Db 61 vggsgqclscgvgoeptltlepvnimelygakeskstfyrddmgltsfesaaypgwf 120
 QY 121 LCTVPEADQPVRLTQLPENGGMNAPITDFYFOCD 155
 Db 121 lctvpeadqpvrltqlpenggmnapitdfyfqcqd 155
 RESULT 15
 AAY92255 AAY92255 standard; protein: 155 AA.
 AC AAY92255;
 XX
 XX 10-AUG-2000 (first entry)
 DE
 XX Generic human IL-1 homologue, hzllia3-K148.
 XX
 XX Generic; interleukin-1; IL-1; homologue; zllia3; anti-inflammatory;
 KW antagonist; pro-inflammatory; agonist; immunomodulator; antiarthritic;
 KW antirheumatic; osteopathic; antipsoriatic; antibacterial; cytostatic;
 KW immunosuppressive; antidiabetic; antidiabetic; nephrotropic; vasodilator;
 KW
 XX Homo sapiens.
 OS
 XX
 XX Key Location/Qualifiers
 FH
 FT Misc-difference 41

FT /label= Glu, Lys
 FT Misc-difference 99
 FT /label= Ala, Ile, Thr
 XX
 XX W0200020595-A1.
 PN
 XX 13-APR-2000.
 PD
 XX 08-OCT-1999; 99MO-US23533.
 PF
 XX 08-OCT-1998; 98US-0169745.
 PR
 XX (ZYMO) ZYMOGENETICS INC.
 PA
 XX Sheppard PO, West RR, Clegg CH;
 PI
 XX
 XX WPI; 2000-303780/26.
 DR
 XX
 XX
 PT Proteins useful for treatment of inflammatory conditions such as
 PT rheumatoid arthritis and psoriasis are agonists or antagonists forms of
 PT new interleukin-1 homologue
 PS
 XX
 XX Claim 3; Page -: 64pp; English.
 CC This is a generic interleukin-1 (IL-1) homologue, designated zllia3.
 CC It is believed that zllia3 acts through IL-1 receptors. In general,
 CC zllia3 proteins having a Lys residue at position 148 (this sequence
 CC and AAY92256) will have anti-inflammatory activity, whilst those having
 CC Asp (AAY92254) or Glu at this position will have pro-inflammatory
 CC action. zllia3 is used to modulate an immune response in an animal
 CC (claimed). Antagonists zllia3 forms may be used to treat or prevent
 CC chronic inflammatory diseases such as rheumatoid arthritis,
 CC osteoarthritis and Lyme arthritis, psoriasis, to reduce tissue damage
 CC after ischemia, to treat septic shock, graft-versus-host disease and
 CC leukemia. The antagonists may also alleviate inflammatory bowel disease
 CC including Crohn's disease and ulcerative colitis, insulin-dependent
 CC diabetes mellitus, acute pancreatitis, glomerulonephritis and cerebral
 CC ischemia. Agonist forms of zllia3 may promote wound healing by IL-1
 CC effects on growth factor secretion and cell proliferation. They may
 CC also treat infections, especially gastrointestinal infections.
 CC Note: This sequence is not given in the specification, it is created
 CC from SEQ. ID. 7, which is given on pages 55-56.
 CC
 XX
 XX Sequence 155 AA:
 SQ
 Query Match 97.8%; Score 805; DB 21; Length 155;
 Best Local Similarity 98.1%; Pred. No. 1.4e-84;
 Matches 152; Conservative 0; Mismatches 3; Indels 0; Gaps 0;
 QY 1 MVLSCALCFPMKDSALKVLTLLHNNOLLAGLHAGKVIKGEISVVPNRWLDASISPYILG 60
 Db 1 mvlsgalcfrmkdsalkvlylhmqlaaglhagkvkgeisvvpnrwldasispvllg 60
 QY 61 VGGSGQCLSCGVGOEPTLTLEPVNIMELYGAKESKSFYRRDMGLTSSFESAAYPGWF 120
 Db 61 vggsgqclscgvgoeptltlepvnimelygakeskstfyrddmgltsfesaaypgwf 120
 QY 121 LCTVPEADQPVRLTQLPENGGMNAPITDFYFOCD 155
 Db 121 lctvpeadqpvrltqlpenggmnapitdfyfqcqd 155
 Search completed: June 25, 2001, 14:05:25
 Job time: 27 sec

GenCore version 4.5
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OM protein - protein search, using SW model

Run on: June 25, 2001, 14:04:58 ; Search time 14.69 Seconds
(without alignments)
803.748 Million cell updates/sec

Title: US-09-612-921-4

Perfect score: 823

Sequence: 1 MVLSGALCFRKMDSALKVLY.....LPENGWNAPIITDFYFOQCD 155

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 219241 segs, 76174552 residues

Total number of hits satisfying chosen parameters: 219241

Minimum DB seq length: 0
Maximum DB seq length: 200000000

Post-processing: Minimum Match 0%
Maximum Match 100%

Listing first 45 summaries

Database :
1: p1r1: *
2: p1r2: *
3: p1r3: *
4: p1r4: *

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	823	100.0	155	2 JC7104	interleukin-1 rece
2	319.5	38.8	177	2 A30368	interleukin-1 rece
3	319.5	38.8	180	2 A39386	interleukin-1 rece
4	308.5	37.5	178	2 A44610	interleukin-1 rece
5	292.5	35.5	178	2 C40956	interleukin-1 rece
6	286.5	34.8	177	2 A54377	interleukin-1 rece
7	141.5	17.2	266	1 S23010	interleukin-1 beta
8	138.5	16.8	266	1 IC801B	interleukin-1 beta
9	130	15.8	267	2 S38373	interleukin-1 beta
10	129	15.7	267	1 JN0724	interleukin-1 beta
11	124.5	15.1	214	2 JC5646	interleukin-1 beta
12	123	14.9	269	1 ICH01B	interleukin-1 beta
13	120	14.6	268	1 A30584	interleukin-1 beta
14	119.5	14.5	269	1 I55969	interleukin-1 beta
15	80.5	9.8	1230	2 T30517	complement C3-Q2 -
16	80.5	9.8	1272	2 S26180	neurofascin - chic
17	80	9.7	364	2 T05401	hypothetical prote
18	80	9.7	374	2 S18887	H+-transporting AT
19	80	9.7	374	2 D64420	N-methylhydantoina
20	79.5	9.7	2352	2 C83229	probable non-ribos
21	78.5	9.5	437	2 I40176	ATP sulfurylase -
22	78	9.5	2970	2 T08839	polypeptide - marm
23	75.5	9.2	551	2 H81552	methionyl-tRNA syn
24	75.5	9.2	551	2 C86506	methionyl-tRNA syn
25	75.5	9.2	634	2 S32349	probable SNF2-type
26	74.5	9.1	272	2 T25044	hypothetical prote
27	74.5	9.1	452	1 D69810	phosphotransferase
28	73	8.9	200	2 B75137	ubiquitinone/menapi
29	73	8.9	1123	2 D96756	receptor-like prot

30	72	8.7	423	2 B86214	hypothetical prote
31	71.5	8.7	551	2 H72117	methionine--tRNA 1
32	71.5	8.7	578	2 T45107	H+-transporting AT
33	71.5	8.7	700	2 T34321	hypothetical prote
34	71.5	8.7	1036	2 B83466	probable RND efflu
35	71.5	8.7	1110	2 T33877	hypothetical prote
36	71	8.6	475	2 G84697	hypothetical prote
37	71	8.6	535	2 T06285	hypothetical prote
38	71	8.6	611	2 A48582	vacuolar ATPase A
39	70.5	8.6	778	2 D72421	xylosidase - Thera
40	70.5	8.6	1161	2 T18642	hypothetical prote
41	70	8.5	269	2 C83516	hypothetical prote
42	70	8.5	305	2 E83091	ATP sulfurylase sm
43	70	8.5	323	2 A82433	fructokinase VCA06
44	69.5	8.4	801	2 B86673	penicillin-binding
45	69	8.4	152	2 B43863	hypothetical prote

ALIGNMENTS

RESULT 1
JC7104
Interleukin-1 receptor antagonist - human
C:Species: Homo sapiens (man)
C:Date: 03-Dec-1999 #sequence_revision 03-Dec-1999 #text_change 21-Jul-2000
C:Accession: JC7104
R:Mulero, J.J.; Pace, A.M.; Nelken, S.T.; Loeb, D.B.; Corree, T.R.; Drmanac, R.; Ford
Biochem. Biophys. Res. Commun. 263, 702-706, 1999
A:Title: IL1HY1: A novel interleukin-1 receptor antagonist gene.
A:Reference number: JC7104; MUID:99443727
A:Accession: JC7104
A:Molecule type: mRNA
A:Residues: 1-155 <MUI>
A:Cross-references: GB:A186094; NID:96049804; PIDN:AA02757.1; PID:96049805
C:Genetics:
A:Gene: il1hy1
A:Map position: 2q14
A:Keywords: macrophage

Query Match 100.0%; Score 823; DB 2; Length 155;
Best Local Similarity 100.0%; Pred. No. 2.3e-77;
Matches 155; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1 MVLSGALCFRKMDSALKVLYLNHNNOLLAGLHGKIKGEISVVRNMLDASLSVYIG 60
Db 1 MVLSGALCFRKMDSALKVLYLNHNNOLLAGLHGKIKGEISVVRNMLDASLSVYIG 60
QY 61 VQGSQCLSCGVQCEPTLTLEPNIMELYGAKESKSFYPRDMGLTSSFESAAYPGWF 120
Db 61 VQGSQCLSCGVQCEPTLTLEPNIMELYGAKESKSFYPRDMGLTSSFESAAYPGWF 120
QY 121 ICTVPEADQPVRLTQLPENGWNAPIITDFYFOQCD 155
Db 121 ICTVPEADQPVRLTQLPENGWNAPIITDFYFOQCD 155
RESULT 2
A30368
Interleukin-1 receptor antagonist secreted form precursor - human
C:Species: Homo sapiens (man)
C:Date: 07-Jun-1990 #sequence_revision 07-Jun-1990 #text_change 26-May-2000
C:Accession: A40956; I37894; A30368; S08160; S08159; A37822
R:Eisenberg, S.P.; Brewer, M.T.; Verderber, E.; Heimdahl, P.; Brandhuber, B.J.; Thomps
Proc. Natl. Acad. Sci. U.S.A. 88, 5232-5236, 1991
A:Title: Interleukin 1 receptor antagonist is a member of the interleukin 1 gene fami
A:Reference number: A40956; MUID:91271363
A:Accession: A40956
A:Molecule type: DNA
A:Residues: 1-177 <EIS>
A:Cross-references: GB:M63099; NID:9186385; PIDN:AA041943.1; PID:9186386
R:Lenard, A.; Gorman, P.; Carrier, M.; Griffiths, S.; Scotney, H.; Sheer, D.; Solari

Cytokine 4, 83-89, 1992
A:Title: Cloning and chromosome mapping of the human interleukin-1 receptor antagonist g
A:Reference number: I37894; MUID:92338323
A:Accession: I37894
A:Status: translated from GB/EMBL/DBJ
A:Molecule type: DNA
A:Residues: 1-177 <LEND>
A:Cross-references: EMBL:X64532; NID:g33798; PIDN:CAA5832.1; PID:g33799
R:Cartier, D.B.; Deibel Jr., M.R.; Dunn, C.J.; Tomich, C.S.C.; Laborde, A.L.; Slighton, J.
J.G.; Siew, L.C.; Hardee, M.M.; Zucher-Neely, H.A.; Reardon, I.M.; Helinikson, R.L.; Tr
Nature 344, 633-638, 1990
A:Title: Purification, cloning, expression and biological characterization of an interle
A:Reference number: A30368; MUID:90220867
A:Accession: A30368
A:Molecule type: mRNA
A:Residues: 1-177 <CAR>
A:Cross-references: GB:X53296; NID:g32578; PIDN:CAA37386.1; PID:g32579
A:Note: parts of this sequence, including the amino end of the mature protein, were confir
R:Eisenberg, S.P.; Evans, R.J.; Arend, W.P.; Verderber, E.; Brewer, M.T.; Hannum, C.H.;
Nature 343, 341-346, 1990
A:Title: Primary structure and functional expression from complementary DNA of a human i
A:Reference number: S08160; MUID:90136921
A:Accession: S08160
A:Status: not compared with conceptual translation
A:Molecule type: mRNA
A:Residues: 1-177 <ET2>
A:Cross-references: GB:X52015; NID:g32576; PIDN:CAA36262.1; PID:g32577
R:Hannum, C.H.; Wilcox, C.J.; Arend, W.P.; Joslin, F.G.; Drilpps, D.J.; Helmdal, P.L.; An
Nature 343, 336-340, 1990
A:Title: Interleukin-1 receptor antagonist activity of a human interleukin-1 inhibitor.
A:Reference number: S08159; MUID:90136920
A:Accession: S08159
A:Molecule type: protein
A:Residues: 26-75;97-108;110-116;120-131;163-176 <HAN>
R:Blenkowski, M.J.; Bessalin, T.E.; Berger, A.E.; Truesdell, S.E.; Shelly, J.A.; Laborde,
J. Biol. Chem. 265, 14505-14511, 1990
A:Title: Purification and characterization of interleukin 1 receptor level antagonist pr
A:Reference number: A37822; MUID:90354444
A:Accession: A37822
A:Molecule type: Protein
A:Residues: 26-52;70-77;122-127;170-175 <BIE>
A:Experimental source: culture medium, PMA-stimulated THP-1 cells
C:Comment: For an alternative splice form, see PIR:A39386
C:Genetics:
A:Gene: GDB:IL1RN
A:Cross-references: GDB:125897; OMIM:147679
A:Map position: 2q14.2-2q14.2
A:Introns: 39/2; 69/1; 106/3
C:Superfamily: Interleukin-1
C:Keywords: alternative splicing; cytokine receptor; extracellular protein; glycoprotein
F:1-25/Domain: signal sequence #status predicted <SIG>
F:26-177/Product: Interleukin-1 receptor antagonist #status experimental <MAT>
F:109/Binding site: carbohydrate (Asn) (covalent) #status experimental

		38.8%;	Score 319.5;	DB 2;	Length 177;	
		Best Local Similarity	49.3%;	Pred. No. 1,7e-25;		
		Matches	73;	Conservative	13;	Mismatches 49;
					Indels	13;
					Gaps	4;
QY	9	FRMDSLAKLYLHNNQLAGCLHAGKVIKGEELISVYPNRMIDLASLP--VILGYOGSGQ	66			
Db	38	FRIMDVNOKFTYLRNNQLVAGSLLOGPNVNLLEKIDVYV-----TEPHALFLGIHGGM	90			
QY	67	CLSC-GVGQEPFLTLPEVYNIMELYIGANESKSTFTFYRRDMGLTSSFSFSAAYPGFELCTVP	125			
Db	91	CLSCVKSGDEFLRLDEAVNITDLSENRRQDRFAFIRSDSGPTSFESAACPGMFLCTAM	150			
QY	126	EADQPVRLTQLPENGGMNAPITDFFFOQ	153			
Db	151	EADQPVSLTNMPDEG---VMTKTFYQE	175			
RESULT	3					

A:39386
N:Interleukin-1 receptor antagonist, long intracellular splice form - human
C:Contains: Interleukin-1 receptor antagonist, short intracellular splice form
C:Species: Homo sapiens (man)
C:Date: 28-Feb-1992 #sequence
C:Accession: I37893; A39386
R:Murio, M.; Polentarutti, N.; Sironi, M.; Poli, G.; De Giola, L.; Introna, M.; Mantovani, J. Exp. Med. 182, 623-628, 1995
A:Title: Cloning and characterization of a new isoform of the Interleukin 1 receptor
A:Reference number: I37893; MUID:95355865
A:Accession: I37893
A:Status: translated from GB/EMBL/DBJ
A:Molecule type: mRNA
A:Residues: 1-180 <RES>
A:Cross-references: EMBL:X8348; NID:g1008970; PIDN:CAA59087.1; PID:g1008971
R:Haaklin, S.; Martin, G.; Van Le, L.; Morris, J.; Peace, A.; Bigler, C.F.; Jaffe, G.
A:Title: cDNA cloning of an intracellular form of the human Interleukin 1 receptor an
A:Reference number: A39386; MUID:91219436
A:Accession: A39386
A:Molecule type: mRNA
A:Residues: 1-3,25-180 <HAS>
A:Cross-references: GB:M55646; NID:g186291; PIDN:AAA5138.1; PID:g186292
C:Comment: For an alternative splice form, see PIR:A30368
C:Genetics:
A:Gene: GDB:IL1RN
A:Cross-references: GDB:125897; OMIM:147679
A:Map position: 2q14.2-2q14.2
C:Superfamily: Interleukin-1
C:Keywords: alternative splicing; cytokine receptor
F:1-180/Product: Interleukin-1 receptor antagonist, long intracellular splice form #s
F:1-3,25-180/Product: Interleukin-1 receptor antagonist, short intracellular splice f

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Query Match          38.8% ; Score 319.5 ; DB 2 ; Length 180 ;
Best Local Similarity 49.3% ; Pred. No. 17e-25 ;
Matches 73 ; Conservative 13 ; Mismatches 49 ; Indels 13 ; Gaps 4 ;

Oy      9 FRMKDALKVLYLHNNOLLAGGLHAKGVKGEISVYPNRMLDASLP-VILGVGGSQ 66
       |||::|||::|||::|||::|||::|||::|||::|||::|||::|||::|||::|||
Db      41 FRIMDVNCKTFYLRRNKQVAVILOGPYNLEIKIDYVP-----IEPHALFLGIHGKM 93

Oy      67 CLSC-GVGOEPTLLIEPVNIMELYLGAKESSFFTYRDMQLTSFESAAVPGMFLCTVP 125
       |||::|||::|||::|||::|||::|||::|||::|||::|||::|||::|||::|||
Db      94 CLSCSKSDSETRLOEAVINITDLSENRRQDRFAFRIRDSGPTTFSFSAACPMFLCTAM 153

Oy      126 EADDPVRLTOLPENGMNAPIIDFYEQ 153
       |||||::|||::|||::|||::|||::|||::|||::|||::|||::|||::|||
Db      154 EADDPVSILTNPDEG---VMVTKEFFQE 178

RESULT    4
A44610
Interleukin-1 receptor antagonist precursor - mouse
N.Alternate names: IL-1ra
C.Species: Mus musculus (house mouse)
C.Date: 09-Sep-1994 #sequence_revision 09-Sep-1994 #text_change 16-Jul-1999
C.Accession: A44610; B40956; A49031; I56106; I52970
R.Matsushima, H.; Rousset, M.F.; Matsushima, K.; Hisshinuma, A.; Sherr, C.J.
Blood 78, 616-623, 1991
A.Title: Cloning and expression of murine interleukin-1 receptor antagonist in macroph
A.Reference number: A44610; MUID:91316273
A.Accession: A44610
A.Molecule type: mRNA
A.Residues: 1-178 <MAT>
A.Molecule type: DNA
A.Residues: 7-178 <EIS>

```

A:Cross-references: GB:M63100; NID:g198389; PIDN:AAA39310.1; PID:g198390
R.Shuck, M.E.; Bessall, T.E.; Tracey, D.E.; Bienkowski, M.J.
Eur. J. Immunol. 21, 2775-2780, 1991
A>Title: Cloning, heterologous expression and characterization of murine Interleukin 1
A.Reference number: A49031; MUID:92037824
A.Accession: A49031
A:Molecule type: mRNA
A.Residues: 23-178 <SMU>
A:Cross-references: GB:S64082; NID:g238584; PIDN:AAB20265.1; PID:g238585
A:Experimental source: peritoneal macrophages, ICR strain
A>Note: sequence extracted from NCBI backbone (NCBIN:64082, NCBIPI:64085)
R.Zahedi, K.; Selvin, M.F.; Rits, M.; Ezekowitz, R.B.; Whitehead, A.S.
J. Immunol. 146, 4228-4233, 1991
A>Title: Mouse IL-1 receptor antagonist protein: Molecular characterization, gene mapping
A.Reference number: I56106; MUID:91250712
A.Accession: I56106
A>Status: preliminary; translated from GB/EMBL/DDBJ
A:Molecule type: mRNA
A.Residues: 1-178 <RES>
A:Cross-references: GB:M74294; NID:g198387; PIDN:AAA39309.1; PID:g198388
R.Zahedi, K.A.; Unhar, C.M.; Prada, A.E.; Whitehead, A.S.
Cytokine 6, 1-9, 1994
A>Title: The mouse interleukin 1 receptor antagonist protein: gene structure and regulation
A.Reference number: I52970; MUID:94271931
A.Accession: I52970
A>Status: preliminary; translated from GB/EMBL/DDBJ
A:Molecule type: DNA
A.Residues: 1-178 <RE2>
A:Cross-references: GB:L32838; NID:g487864; PIDN:AAA20576.1; PID:g528978
C:Genetics:
A:Gene: IL-1rn
A:Introns: 40/2; 70/1; 107/3
C:Superfamily: Interleukin-1
C:Keywords: cytokine receptor
F:1-26/Domains: signal sequence #status predicted <SIG>
F:27-178/Product: interleukin-1 receptor antagonist #status predicted <MA2>

Query Match 37.5%; Score 308.5; DB 2; Length 178;
Best Local Similarity 48.0%; Pred. No. 2.3e-24;
Matches 71; Conservative 15; Mismatches 49; Indels 13; Gaps 4;

OY 9 FRMKSAALKVLYLHNNOLLAGCIHAGVKIKGEISVVPNRMLDASLVILGVOGSGOCL 68
|| : | ||| : || : : || : ||
Db 39 FRIMDTNKRTYLRLRNQLIAGTLOGPNIKLEKIDMVP-----IDLHSVFGLIHGGKICL 93

OY 69 SCG-VGOEPTLTLEPVNTIMEIYLGAKESSFTFYRRDGLTSSFESEAAYPGWFLCTYPEA 127
|| : | ||| : || : : ||| : || : ||| : ||
Db 94 SCAGSGDDIKILOLEVINTITDSKNKEEDKRFTFEISEKGPTTSFESACPGWFLCTYLEA 153

OY 128 DQPVRLTQLPENGGMNP--ITDFYEQ 153
|:||| || : : |||||
Db 154 DRPVSLTMTPEE----PLIVTKTFYE 176

RESULT 5
C40956
interleukin-1 receptor antagonist precursor - rat
C:Species: Rattus norvegicus (Norway rat)
C>Date: 20-Mar-1992 #sequence_revision 20-Mar-1992 #text_change 16-Jul-1999
C:Accession: S40956
R:Eisenberg, S.P.; Brewer, M.T.; Verderber, E.; Helmdal, P.; Brandhuber, B.J.; Thompson,
Proc. Natl. Acad. Sci. U.S.A. 88, 5233-5236, 1991
A>Title: Interleukin 1 receptor antagonist is a member of the interleukin 1 gene family
A.Reference number: A40956; MUID:91271363
A.Accession: C40956
A>Status: Preliminary
A:Molecule type: DNA
A.Residues: 1-178 <ETS>
C:Cross-references: GB:M63101; NID:g204928; PIDN:AAA41434.1; PID:g204929
C:Superfamily: Interleukin-1
C:Keywords: cytokine receptor

Query Match	35.5%	Score 292.5	DB 2	Length 178
Best Local Similarity	45.9%	Pred. No. 1e-22		
Matches	67	Conservative	14	Mismatches 56; Indels 9; gaps 3;
OY	9	FRMKDSALKVLYLHNNQLAGLHAGKVIKEEISVVPNRWLDASLSPVILGVOGSGOCL	68	
	: :	:	: :	: :
Db	39	FRIMDTNOKTFTYLRNRNQLAGYLOGPNKJLEBKIDMVE-----IDFRVVFGLHGKICL	93	
OY	69	SC-GVGQEPFTLTLEPVNIMELYLAKESKSFTFYRRDGLTSSFEASAPGGMFLCTVPEA	127	
	: :	: : :	: : :	: : :
Db	94	SCVSGSDGTQLQLEEVNITTDLNKNKEEDKRPTFIRSETGPTTSPESLACPGMFLCTTLEA	153	
OY	128	DQPVRLTQLPENGGNNAPIITDPIYFOQ	153	
	: :	: : :	: : :	: : :
Db	154	DHPSVLTNTPKE---PCTVTKEFYOE	176	

RESULT 6
A:Accession: A54377
Interleukin-1 receptor antagonist secreted form precursor - rabbit
C:Species: Oryctolagus cuniculus (domestic rabbit)
C:Date: 06-Oct-1994 #sequence_revision 18-Nov-1994 #text_change 16-Jul-1999
C:Accession: A54377; I46729
R:Cominelli, F.; Borzilai, M.; Pizarro, T.T.; Monsacchi, L.; Ferretti, M.; Brewer, M.
J. Biol. Chem. 269, 6962-6971, 1994
A:Title: Rabbit interleukin-1 receptor antagonist. Cloning, expression, functional ch
A:Reference number: A54377; MUID:94165101
A:Accession: A54377
A:Molecule type: mRNA
A:Residues: 1-177 <COM>
A:Cross-references: GB:568977; NID:g545740; PIDN:AAB30093.1; PID:g545741
A:Experimental source: colon tissue
A:Note: sequence extracted from NCBI backbone (NCBI:144168, NCBI:144169)
R:Goto, F.; Goto, K.; Miyata, T.; Ohkawara, S.; Takao, T.; Mori, S.; Furukawa, S.; Ma
Immunology 77, 235-244, 1992
A:Title: Interleukin-1 receptor antagonist in inflammatory exudate cells of rabbits. P
A:Reference number: I46729; MUID:93052512
A:Accession: I46729
A:Status: translated from GB/EMBL/DBJ
A:Molecule type: mRNA
A:Residues: 1-177 <GOT>
A:Cross-references: GB:D21832; NID:g425787; PIDN:BAA04860.1; PID:g452205
C:Superfamily: interleukin-1
C:Keywords: cytokine, receptor; extracellular protein; glycoprotein
C:1-75/Domain: signal sequence #status predicted <Sig>
C:109/Binding site: carboxylate (Asn) (covalent) #status predicted

```

Query Match      34.8%  Score 286.5:  DB 2:  length 177;
Best Local Similarity 45.9%  Pred. No. 4, 1e-22;
Matches 68;  Conservative 17;  Mismatches 50;  Indels 13;  Gaps

OY      9  FRMDASLKVLYILHNNOILAGGLHAGKVIKGEIEISVPPNRMIDLASLSP--VILVQGSQ 66
      || : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
Db      38  FRIMDVNQKFFYLNNQILVAGVILQGPMAKLEERIDVP-----LEPQLLFLGIQKGL 90

OY      67  CLSC-GVGOEPTLTLEPVNIMELYLKAKSEKSTFFRRDMGLTSSFEASAYGMLCTVP 125
      || : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
Db      91  CLSCVKSQDKKRLHLEAVNVTLDLGNKNEODKRPFLTRNSGPTTFESASCQWFLCTAL 150

OY      126  EADQPVRLTQLPENGQWNAPIFDYFQQ 153
      ||||| || : : : : : : : : : : : : : : : : : : : : : : : :
Db      151  EADQPVSLTNPDP---SIYVTKFYQE 175

RESULT      7
S23010
Interleukin-1 beta precursor - sheep
N:Alternate names: hematoopoietin-1; IL-1 beta
C:Species: Ovis orientalis aries, Ovis ammon aries (domestic sheep)
i:Date: 08-Jun-1994 f:Sequence_revision: 22-Nov-1996 t:text_change 15-Oct-1999
f:Accession: S23010; S43047; S13092; B61246

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JN0724
Interleukin-1 beta precursor - pig
N:Alternate names: hematopoietin-1; IL-1 beta
C:Species: Sus scrofa domestica (domestic pig)
C:Date: 14-Jul-1994 #sequence_revision 22-Nov-1996 #text_change 22-Jun-1999
C:Accession: JN0724
R:Huetter, M.J.; Lih, G.; Smith, D.M.; Murtaugh, M.P.; Moltor, T.W.
Gene 129, 285-289, 1993
A:Title: Cloning, sequencing and regulation of an mRNA encoding porcine interleukin-1 beta
A:Reference number: JN0724; MUID:93314975
A:Accession: JN0724
A:Molecule type: mRNA
A:Residues: 1-267 <HUE>
A:Cross-references: GB:M86725; NID:9164607; PIDN:AAA02584.1; PID:9164608
A:Experimental source: alveolar macrophage
C:Comment: This protein is a pleiotropic cytokine that mediates a variety of processes involved form of interleukin-beta, unlike interleukin 1-alpha, is inactive.
C:Comment: Interleukin-1-beta precursor is less heavily myristoylated than interleukin-1a
C:Keywords: cytokine; immunoregulation; inflammation; lipoprotein; lymphokine; macrophag
F:115-267/Product: Interleukin-1 beta #status predicted <ILI>
F:77/Binding site: myristate (Lys) (covalent) #status predicted

Query Match 15.7%; Score 129; DB 1; Length 267;
Best Local Similarity 28.7%; Pred. No. 1.1e-05;
Matches 43; Conservative 23; Mismatches 62; Indels 22; Gaps 5;

OY 1 MVLGALCRMDALKLYLHNNQLAGLHAGKVIKGEISVVRNRLDASLSPVILG 60
DB 132 LVLAG-----PHMKRALHLTGDLKREVFCMSFVCGDDSN-----KRIPTVLG 175
OY 61 VOGSGSCLSGV-GQBPITLTPVNMELYLAKESKSFYRDMGLTSPESAAYPGM 119
DB 176 IKRNIYLSQVMDNPTTQLIEDID-PKRYPKDMKRVFTETKRNVEFSALYPMW 234
OY 120 FICTVPEADQPVRLTQLPENGNNAPITDF 149
DB 235 YISTSQAEQKPVFL-----GNSKRGQDITDF 260

RESULT 11
JCS646
Interleukin-1 beta - horse
C:Species: Equus caballus (domestic horse)
C:Date: 28-Oct-1997 #sequence_revision 28-Oct-1997 #text_change 20-Jun-2000
C:Accession: JCS646
R:Kato, H.; Yon, H.Y.; Ohashi, T.; Watari, T.; Goitsuka, R.; Tsujimoto, H.; Hasegawa, A.
Gene 177, 11-16, 1996
A:Title: Identification of an alternatively spliced transcript of equine interleukin-1 beta
A:Reference number: JCS646; MUID:97080493
A:Accession: JCS646
A:Molecule type: mRNA
A:Residues: 1-214 <KAT>
A:Cross-references: DBJ:D42165; NID:92463549; PIDN:BA22528.1; PID:92463550
C:Comment: This protein mediates a variety of physiological response to infections and synthesis by hepatocytes, and stimulation of chondrocytes and synovial cells to produce C:Superfamily: Interleukin-1

Query Match 15.1%; Score 124.5; DB 2; Length 214;
Best Local Similarity 33.3%; Pred. No. 2.4e-05;
Matches 39; Conservative 15; Mismatches 48; Indels 15; Gaps 5;

OY 37 IKGEISVVRNRLDASLSPVILGVOGSGCLSGVGO-EPTITLTPVNMELYLCAKES 95
DB 108 VOGEE-----ETDKIPVALGLKEKNLYLSCGKDKKPTQLTETVD-PNTYPRKME 157
OY 96 KSFTFRDMGLTSPESAAYPGMFLCTVPEADQPVRLTQLPENGNNAPITDFEYQ 152
DB 158 KRVFKMKELKGVESAMYPWYISTSQAEKSPVFLGN--TRGG--RDITDFIME 210

RESULT 12

ICHI01B

Interleukin-1 beta precursor [validated] - human
N:Alternate names: hematopoietin-1; IL-1 beta
C:Species: Homo sapiens (man)
C:Date: 28-Feb-1986 #sequence_revision 15-May-1998 #text_change 15-Sep-2000
C:Accession: A25542; A29019; A94023; A93361; I51852; I65200; I38132; B27616; A01848;
R:Clark, B.D.; Collins, K.L.; Gandy, M.S.; Webb, A.C.; Auron, P.E.
Nucleic Acids Res. 14, 7897-7914, 1986
A:Title: Genomic sequence for human prointerleukin 1 beta: possible evolution from a
A:Reference number: A25542; MUID:87040762
A:Accession: A25542
A:Molecule type: DNA; mRNA
A:Residues: 1-5, 'K', 7-269 <CLA>
A:Cross-references: GB:X04500; NID:933788
A:Note: the mRNA sequence had codon AAG for 6-Lys, the DNA sequence had GAG for 6-Glu
R:Bensl, G.; Raugel, G.; Palla, E.; Carinci, V.; Buonamassa, D.T.; Melll, M.
Gene 52, 95-101, 1987
A:Title: Human interleukin-1 beta gene.
A:Reference number: A29019; MUID:87248099
A:Accession: A29019
A:Molecule type: DNA
A:Residues: 1-269 <BEN>
A:Cross-references: GB:M15840; NID:9186281; PIDN:AAA74137.1; PID:9386816
R:Auron, P.E.; Webb, A.C.; Rosenwasser, L.J.; Mucci, S.F.; Rich, A.; Wolff, S.M.; Din
Proc. Natl. Acad. Sci. U.S.A. 81, 7907-7911, 1984
A:Title: Nucleotide sequence of human monocyte interleukin 1 precursor cDNA.
A:Reference number: A94023; MUID:85088517
A:Accession: A94023
A:Molecule type: mRNA
A:Residues: 1-5, 'K', 7-269 <AUR>
A:Cross-references: GB:K02770; NID:9186268; PIDN:AAA36106.1; PID:9307043
R:March, C.U.; Mosley, B.; Larsen, A.; Cerretti, D.P.; Braedt, G.; Price, V.; Gillis,
Nature 315, 641-647, 1985
A:Title: Cloning, sequence and expression of two distinct human interleukin-1 complex
A:Reference number: A93361; MUID:85240547
A:Accession: A93361
A:Molecule type: mRNA
A:Residues: 1-269 <KAP>
A:Cross-references: GB:X02532; NID:933789; PIDN:CAA26372.1; PID:933790
A:Note: parts of this sequence, including the amino end of the mature form, were conf
R:Webb, A.C.; Dinarello, C.A.; Rosenwasser, L.J.; Mucci, S.F.; Rich, A.; Wolff, S.M.;
Adv. Gene Technol. 22, 339-340, 1985
A:Title: Nucleotide sequence of human monocyte interleukin 1 precursor cDNA.
A:Reference number: I51852
A:Accession: I51852
A:Status: translated from GB/EMBL/DBJ
A:Molecule type: mRNA
A:Residues: 1-5, 'K', 7-19, 'H', 21-110, 'Q', 112-176, 'A', 178-213, 'P', 215-269 <WEB>
A:Cross-references: GB:M54933; NID:9186287; PIDN:AAA59136.1; PID:9186288
R:Nishida, T.; Nishino, N.; Takano, M.; Kawai, K.; Bando, K.; Masui, Y.; Nakai, S.; H
Biochem. Biophys. Res. Commun. 143, 345-352, 1987
A:Title: cDNA Cloning of IL-1 alpha and IL-1 beta from mRNA of U937 cell line.
A:Reference number: I52217; MUID:87156769
A:Accession: I65200
A:Status: preliminary; translated from GB/EMBL/DBJ
A:Molecule type: mRNA
A:Residues: 1-269 <NIS>
A:Cross-references: GB:M15330; NID:9186283; PIDN:AAA59135.1; PID:9307045
R:Kotenko, S.V.; Bulenkov, M.T.; Velko, V.P.; Epshin, S.M.; Lomakin, I.B.; Emel'Yano
I.I.; S.A.; Vinetskii, Y.P.
Dokl. Akad. Nauk SSSR 309, 1005-1008, 1989
A:Title: Cloning of the cDNA coding for human prointerleukin-1 alpha and prointerleu
A:Reference number: I38132; MUID:90249285
A:Accession: I38132
A:Status: translated from GB/EMBL/DBJ
A:Molecule type: mRNA
A:Residues: 1-269 <KOR>
A:Cross-references: EMBL:X56087; NID:935662; PIDN:CAA39567.1; PID:935663
R:Zebo, K.M.; Wypych, J.; Tyschenko, V.N.; Lu, H.; Hunt, P.; Dukas, P.P.; Langley,
Blood 71, 962-968, 1988
A:Title: Effects of hematopoietin-1 and interleukin 1 activities on early hematopoiet

A:Reference number: A90732; MUID:88184226
A:Accession: B27616
A:Molecule type: Protein
A:Residues: 117-123, 'X', 125-126, 'X', 128 <ZSE>
R:Stevenson, F.T.; Bursten, S.L.; Fanton, C.; Lockaley, R.M.; Lovett, D.H.
Proc. Natl. Acad. Sci. U.S.A. 90, 7245-7249, 1993
A:Title: The 31-kDa precursor of interleukin 1alpha is myristoylated on specific lysines
A:Reference number: A48293; MUID:93348250
A:Contents: annotation; myristylation of lysines
R:Nandori, V.B.; Holmes, J.D.; Pan, Y.C.E.; Kilian, P.L.; Stern, A.S.
Biochim. Biophys. Acta 1118, 25-35, 1991
A:Title: The role of arginine residues in interleukin 1 receptor binding.
A:Reference number: S19608; MUID:92110334
A:Contents: annotation; type I IL-1 receptor interaction site
A:Note: modification of Arg-120 by phenylglyoxal blocks receptor binding
R:Clow, G.M.; Gronenborn, A.M.
Submitted to the Brookhaven Protein Data Bank, January 1991
A:Reference number: A50049; PDB:611B
A:Contents: annotation; conformation by (13)C- and (1)H-NMR, residues 117-269
R:Clow, G.M.; Wingfield, P.T.; Gronenborn, A.M.
Biochemistry 30, 2315-2323, 1991
A:Title: High-resolution three-dimensional structure of interleukin 1beta in solution by NMR
A:Reference number: A44675; MUID:91159409
A:Contents: annotation; (1)H-NMR structural determination
R:Hazud, D.J.; Strickler, J.; Simon, P.; Young, P.R.
J. Biol. Chem. 266, 7081-7086, 1991
A:Title: Structure-function mapping of interleukin 1 precursors. Cleavage leads to a cort
A:Reference number: A39774; MUID:91201363
A:Contents: annotation
R:Finzel, B.C.; Watenpaugh, K.D.; Einspahr, H.M.
Submitted to the Brookhaven Protein Data Bank, December 1989
A:Reference number: A50016; PDB:111B
A:Contents: annotation; X-ray crystallography, 2.0 angstroms, residues 119-269
R:Finzel, B.C.; Clancy, L.L.; Holland, D.R.; Muchmore, S.W.; Watenpaugh, K.D.; Einspahr, J. Mol. Biol. 209, 779-791, 1989
A:Title: Crystal structure of recombinant human interleukin-1beta at 2.0 angstrom resolution
A:Reference number: A44666; MUID:90064532
A:Contents: annotation; X-ray crystallography, 2.0 angstroms
A:Comment: This protein lacks a conventional signal sequence for protein export. Cleaved form of interleukin-1beta, unlike interleukin-1alpha, is inactive.
C:Comment: Interleukin-1beta precursor is less heavily myristoylated than interleukin-1alpha
C:Genetics:
A:Gene: GDB:111B
A:Cross-references: GDB:120094; OMIM:147720
A:Map position: 2q13-2q21
A:Introns: 16/2; 33/3; 101/1; 156/1; 199/3
C:Superfamily: Interleukin-1
C:Keywords: cytokine; immunoregulation; inflammation; lipoprotein; lymphokine; macrophage
E:117-269/Product: interleukin-1 beta #status experimental <11>
E:76/Binding site: myristate (lys) (covalent) (partial) #status experimental
E:123/Binding site: carboxylate (Asn) (covalent) #status absent

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Query March      14.9% Score 123; DB 1; Length 269;  
Best Local Similarity 29.0%; Pred.No. 4.6e-05;  
Matches 45; Conservative 23; Mismatches 61; Indels 26; Gaps 6;
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OY 1 MYLSCALCFRRKDKSALKYLTYLNHNOQLLAGGLHACKVIKEGEISVYPNRMKLDSLSPVLIG 60
 :::||| || | | : : ::||| | : | |
Db 134 LVMSGPLY-----ELKKHLHQGDMEQGVFMSMFVGESNN-----DKIPVALG 177

OY 61 VQGSGQCISCAY-GOEPLTLEPVYNIMELYGAKESEFTYYRDMGTLSSESNAAPGW 119
 : : : | | | : | | | | | | | | | : : : | | | | | | : | |
Db 178 LKERNLITSLCVLKADKPPIQLAESVD-PKNYPRKKMKERFRVENKIINNKLTFSQAQPFW 236

OY 120 FLCTVPPEADQPYRLTLQLPENGGMAN--PTIDFYRQ 152
 : : : | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
Db 237 YISTSQAEENMPFL----GGTRKGODITDTFMQ 265

RESULT 13
A305B4
interleukin-1 beta precursor - rabbit

N:Alternate names: hematopoietin-1; IL-1 beta; lymphocyte proliferation potentiating
C:Species: *Oryzias latipes* (domestic rabbit)
C>Date: 25-May-1999 #sequence_revision 22-Nov-1996 #text_change 22-Jun-1999
C/Accession: A27714; A30584; J00082; A32166
R:Moti, S.; Goto, F.; Goto, K.; Okkawara, S.; Maeda, S.; Shimada, K.; Yoshinaga, M.
Biochem. Biophys. Res. Commun. 150, 1237-1243, 1988
A>Title: Cloning and sequence analysis of a cDNA for lymphocyte proliferation potenti-
A/Reference number: A27714; MUID:88134238
A/Accession: A27714
A>Status: not compared with conceptual translation
A/Molecule type: mRNA
A/Residues: 1-268 <CNR>
R:Cannon, J.G.; Clark, B.D.; Wingfield, P.; Schmelzner, U.; Losberger, C.; Dinarello
J. Immunol. 142, 2299-2306, 1989
A>Title: Rabbit IL-1. Cloning, expression, biologic properties, and transcription dur-
A/Reference number: A30584; MUID:89176242
A/Accession: A30584
A/Molecule type: mRNA
A/Residues: 1-268 <CAN>
A/Cross-references: GB:426295; NID:9516632; PID:AAA31373.1; PID:9516633
R:Young, P.R.; Sylvestre, D.
Protein Eng. 2, 545-551, 1989
A>Title: Cloning of rabbit interleukin-1 beta: differential evolution of IL-1 alpha a
A/Reference number: A94230; MUID:89315718
A/Accession: J00082
A/Molecule type: mRNA
A/Residues: 1-268 <YOU>
C/Comment: This protein lacks a conventional signal sequence for protein export. Clea-
ved form of interleukin-1beta, unlike interleukin 1-alpha, is inactive.
C/Comment: Interleukin-1beta precursor is less heavily myristoylated than interleukin
C/Superfamily: interleukin-1
C/Keywords: cytokine; immunoregulation; inflammation; lymphokine; macrophage; mitogen
#117-268/Product:Interleukin-1 beta #status predicted <ILB>

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Query March 14.6% Score 120; DB 1; Length 268;
Best Local Similarity 29.3% Pred. No. 9.3e-05;
Matches 44; Conservative 21; Mismatches 63; Indels 22; Gaps 5;

QY      1  MYLGGALCFRRKDSALKVLYLHNNQLLAGGLHACKVIKGEISVYVNRWLDASLPIYLG 60
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Db      133  LVLSSTY-----ELKRLHNAENLNOQVVFMSFVQGEESN-----DKIPALG 176
      :      :      :      :      :      :      :      :      :      :
QY      61  VQGGSGCLSCGV-GQEPPLTLEPVNIMELIYGAESKSFYTRDMDGLTSFESAAPGW 119
      :      :      :      :      :      :      :      :      :      :
Db      177  LRGNLYLSTSCWKKDKPPLQLLESVD-PNRYPKKMKMERKFEVFNKLEIKDLFEESAQPPNW 235
      :      :      :      :      :      :      :      :      :      :
QY      120  FLCTVPEADQPVRLTQLPENGMNAPITDF 149
      :      :      :      :      :      :      :      :      :      :
Db      236  YISTSTQTYMPFL-----GNSSGQDLIDF 261
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RESULT 14
155969
Interleukin-1 beta precursor - mouse
A:Alternate names: hematopoietin-1; IL-1 beta
C:Species: Mus musculus (house mouse)
C:Date: 26-Jul-1996 #sequence,revision 22-Nov-1996 #text_change 22-Jun-1999
C:Accession: I55969; A24719; S13029
J:Gray, P.W.; Glaister, D.; Chen, E.; Goeddel, D.V.; Pennica, D.
J:Immunol. 137, 3644-3648, 1986
A:Title: Two interleukin 1 genes in the mouse: Cloning and expression of the cDNA for
A:Reference number: I55969; MUID:87058957
A:Accession: I55969
A:Status: preliminary; translated from GB/EMBL/DBJ
A:Molecule type: mRNA
A:Residues: 1-269 <RES>
A:Cross-references: GB:M15131; NID:q198293; PIDN:AA39276.1; PID:q30398
R:Telford, J.L.; Macchia, G.; Massone, A.; Carinchi, V.; Palla, E.; Melli, M.
Nucleic Acids Res. 14, 9955-9963, 1986
A:Title: The murine interleukin 1-beta gene: structure and evolution.
A:Reference number: A24719; MUID:87117546
A:Accession: A24719

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GenCore version 4.5
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OM protein - protein search, using sw model

Run on: June 25, 2001, 14:05:28 ; Search time 9.53 Seconds

(without alignments)
557,146 Million cell updates/sec

Title: US-09-612-921-4

Perfect score: 823

Sequence: 1 MVLSGALCFRKNDSALKVLY.....LPENGWNPITDFYFQOCD 155

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 93435 seqs, 34255486 residues

Total number of hits satisfying chosen parameters: 93435

Minimum DB seq length: 0

Maximum DB seq length: 200000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database : SwissProt_39.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	319.5	38.8	177	IL1X_HUMAN	P18510 homo sapien
2	308.5	37.5	178	IL1X_MOUSE	P25085 mus musculu
3	305.5	37.1	177	IL1X_PIG	Q29056 sus scrofa
4	295.5	35.9	174	IL1X_BOVIN	O77482 bos taurus
5	292.5	35.5	178	IL1X_RAT	P25086 rattus norv
6	286.5	34.8	177	IL1X_RABIT	P26890 oryctolagus
7	273.5	33.2	177	IL1X_HORSE	O18899 equus cabal
8	141.5	17.2	266	IL1B_SHEEP	P21621 ovis aries
9	140.5	17.1	266	IL1B_CEREL	P51745 cervus elap
10	135.5	16.5	266	IL1B_BOVIN	P09428 bos taurus
11	132	16.0	268	IL1B_HORSE	Q28386 equus cabal
12	129.5	15.7	266	IL1B_CAPHI	P79162 capra hircu
13	129	15.7	267	IL1B_PIG	P26889 sus scrofa
14	127	15.4	269	IL1B_MACMU	P48090 macaca mula
15	126	15.3	268	IL1B_MACFA	P79182 macaca fasc
16	124	15.1	269	IL1B_MACNE	P51493 macaca neme
17	123	14.9	269	IL1B_HUMAN	P01584 homo sapien
18	120	14.6	268	IL1B_RABIT	P14628 oryctolagus
19	119.5	14.5	269	IL1B_MOUSE	P10749 mus musculu
20	119	14.5	267	IL1B_FELCA	P41687 felis silve
21	116.5	14.2	268	IL1B_RAT	Q63564 rattus norv
22	116	14.1	269	IL1B_CERTO	P46648 cercopithec
23	79	9.6	318	SYGA_MORCA	P77992 moraxella c
24	78.5	9.5	437	SAT_RIPPS	Q54506 riftia pach
25	75.5	9.2	551	SYM_CHIPP	Q92859 chlamydia p
26	71.5	8.7	578	VATR_METMA	Q60186 metanosarc
27	71	8.6	611	VATR_PLAFA	Q03498 plasmodium
28	70	8.5	271	IL1A_MACFA	P79340 macaca fasc
29	70	8.5	271	IL1A_MACMU	P48089 macaca mula
30	69	8.4	152	CYSD_PSEAE	Q50273 pseudomonas
31	69	8.4	152	VTYA_TREHY	Q06809 treponema h
32	69	8.4	224	DKK4_HUMAN	Q9ubd3 homo sapien
33	69	8.4	352	P277_HUMAN	Q15722 homo sapien

ALIGNMENTS

RESULT ID	IL1X_HUMAN	STANDARD	PRT	177 AA.
AC	P18510;			
DT	01-NOV-1990 (Rel. 16, Last sequence update)			
DT	01-NOV-1990 (Rel. 16, Last sequence update)			
DT	01-OCT-2000 (Rel. 40, Last annotation update)			
DE	INTERLEUKIN-1 RECEPTOR ANTAGONIST PROTEIN PRECURSOR (IL-1RA) (ICIL-1RA) (IRAP) (IL-1RN).			
DE	IL1RN OR IL1RA.			
GN	Homo sapiens (Human).			
OC	Eukaryota; Metazoa; Chordata; Vertebrata; Euteleostomi;			
OC	Mammalia; Eutheria; Primates; Catarrhini; Homiidae; Homo.			
OX	NCBI_TaxID=9606;			
RN	[1]			
RP	SEQUENCE FROM N.A.			
RP	MEDLINE=90220867; PubMed=2139180;			
RA	Carter D.B., Deibel M.R., Jr., Dunn C.J., Tomich C.S.C., Laborde A.L.,			
RA	Slightom J.L., Berger A.E., Bienkowski M.J., Sun F.F., McEwan R.N.,			
RA	Harris P.K.W., Yen A.W., Waszak G.A., Chosay J.G., Siew L.C.,			
RA	Hardee M.M., Zurcher-Neely H.A., Reardon I.M., Heinrichson R.L.,			
RA	Truesdell S.E., Shelly J.A., Bessalu T.E., Taylor B.M., Tracey D.E.;			
RT	"Purification, cloning, expression and biological characterization of			
RT	an interleukin-1 receptor antagonist protein.";			
RL	Nature 344:633-638(1990).			
RN	[2]			
RP	SEQUENCE FROM N.A.			
RP	MEDLINE=90136921; PubMed=2137201;			
RA	Eisenberg S.P., Evans R.J., Arend W.P., Verderber E., Brewer M.T.,			
RA	Hannum C.H., Thompson R.C.;			
RT	"Primary structure and functional expression from complementary DNA			
RT	of a human interleukin-1 receptor antagonist.";			
RL	Nature 343:341-346(1990).			
RN	[3]			
RP	SEQUENCE FROM N.A.			
RP	MEDLINE=91271363; PubMed=1828896;			
RA	Eisenberg S.P., Brewer M.T., Verderber E., Heimdal P.,			
RA	Brandhuber B.J., Thompson R.C.;			
RT	"Interleukin 1 receptor antagonist is a member of the interleukin 1			
RT	gene family: evolution of a cytokine control mechanism.";			
RL	Proc. Natl. Acad. Sci. U.S.A. 88:5232-5236(1991).			
RN	[4]			
RP	SEQUENCE FROM N.A.			
RP	MEDLINE=92338323; PubMed=1365987;			
RA	Lennard A., Gorman P., Carrier M., Griffiths S., Scotney H.,			
RA	Sheer D., Solari R.;			
RT	"Cloning and chromosome mapping of the human interleukin-1 receptor			
RT	antagonist gene.";			
RL	Cytokine 4:83-89(1992).			
RN	[5]			
RP	SEQUENCE FROM N.A.			
RP	MEDLINE=97146044; PubMed=8992991;			
RA	Jenkins J.K., Drog R.F., Shuck M.E., Bienkowski M.J., Slightom J.L.,			
RA	Arend W.P., Smith M.F., Jr.;			
RT	"Intracellular IL-1 receptor antagonist promoter: cell type-specific			
RT	and inducible regulatory regions.";			

34	69	8.4	695	1	TRE_RABIT	P19134 oryctolagus
35	68.5	8.3	133	1	Y4D0_RHISN	P55414 rhizobium s
36	68.5	8.3	2201	1	P0LG_CXAG	P21404 c genome po
37	68	8.3	1447	1	DCC_HUMAN	P43146 homo sapien
38	68	8.3	1447	1	DCC_MOUSE	P70211 mus musculu
39	67.5	8.2	615	1	VAH2_HUMAN	P38607 homo sapien
40	67.5	8.2	617	1	VAA1_BOVIN	P31404 bos taurus
41	67.5	8.2	617	1	VAA1_HUMAN	P38606 homo sapien
42	67.5	8.2	617	1	VAA1_MOUSE	P50516 mus musculu
43	67.5	8.2	617	1	VATA_MANSE	P31400 manduca sex
44	67	8.1	226	1	RIL_MYCGE	P47328 mycoplasma
45	67	8.1	282	1	DHPS_ECOLI	P26282 escherichia

RL J. Immunol. 158:748-755(1997).
 RP [6]
 RX SEQUENCE OF 26-45.
 RA MEDLINE=90136920; PubMed=2137200;
 RA Hannum C.H., Wilcox C.J., Arend W.P., Joslin F.G., Dripps D.J.,
 RA Heilmann P.L., Ames L.G., Sommer A., Eisenberg S.P., Thompson R.C.;
 RA "Interleukin-1 receptor antagonist activity of a human interleukin-1
 RT inhibitor.";
 RL Nature 343:336-340(1990).
 RN [7]
 RP SEQUENCE OF 26-52.
 RX MEDLINE=90354444; PubMed=2143761;
 RA Bielecki M.J., Eissalu T.E., Berger A.E., Truesdell S.E.,
 RA Shelly J.A., Laborde A.L., Zuercher-Wealy H.A., Reardon I.M.,
 RA Heinrichson R.L., Chosay J.G., Tracey D.E.;
 RT "Purification and characterization of interleukin 1 receptor level
 RT antagonist proteins from THP-1 cells.";
 RL J. Biol. Chem. 265:14505-14511(1990).
 RN [8]
 RP SEQUENCE FROM N.A. (INTRACELLULAR FORM).
 RX MEDLINE=91219436; PubMed=1827201;
 RA Haskell S., Martin G., Van Le L., Morris J., Peace A., Bigler C.F.,
 RA Jaffe G.J., Hammerberg C., Sporn S.A., Fong S., Arend W.P., Ralph P.;
 RT "cDNA cloning of an intracellular form of the human interleukin 1
 RT receptor antagonist associated with epithelium.";
 RL Proc. Natl. Acad. Sci. U.S.A. 88:3681-3685(1991).
 RN [9]
 RP STRUCTURE BY NMR.
 RX MEDLINE=92297633; PubMed=1534997;
 RA Stockman B.J., Scabill T.A., Roy M., Ulrich E.L., Strakalatis N.A.,
 RA Brunner D.P., Yem A.W., Deibel M.R. Jr.;
 RT "Secondary structure and topology of interleukin-1 receptor
 RT antagonist protein determined by heteronuclear three-dimensional NMR
 RT spectroscopy.";
 RL Biochemistry 31:5237-5244(1992).
 RN [10]
 RP STRUCTURE BY NMR.
 RX MEDLINE=94320651; PubMed=8045306;
 RA Stockman B.J., Scabill T.A., Strakalatis N.A., Brunner D.P.,
 RA Yem A.W., Deibel M.R. Jr.;
 RT "Solution structure of human interleukin-1 receptor antagonist
 RT protein.";
 RL FEBS Lett. 349:79-83(1994).
 RN [11]
 RP X-RAY CRYSTALLOGRAPHY (2.0 ANGSTROMS).
 RX MEDLINE=94230368; PubMed=8175703;
 RA Vigers G.P.A., Caffes P., Evans R.J., Thompson R.C., Eisenberg S.P.,
 RA Brandhuber B.J.;
 RT "X-ray structure of interleukin-1 receptor antagonist at 2.0-A
 RT resolution.";
 RL J. Biol. Chem. 269:12874-12879(1994).
 RN [12]
 RP X-RAY CRYSTALLOGRAPHY (2.1 ANGSTROMS).
 RX MEDLINE=95172072; PubMed=7867645;
 RA Schneider H.A., Roudau J.-M., Tardif C., Soffientini A., Sarubbi E.,
 RA Akesson A., Bowlin T.L., Yanofsky S., Barrett R.W.;
 RT "Refined crystal structure of the interleukin-1 receptor antagonist.
 RT Presence of a disulfide link and a cis-proline.";
 RL Eur. J. Biochem. 227:838-847(1995).
 RN [13]
 RP X-RAY CRYSTALLOGRAPHY (2.7 ANGSTROMS) OF 32-177 IN COMPLEX WITH IL1R
 RX MEDLINE=97215904; PubMed=9062194;
 RA Schneider H., Tardif C., Trump-Kallmeyer S., Soffientini A.,
 RA Sarubbi E., Akesson A., Bowlin T., Yanofsky S., Barrett R.W.;
 RT "A new cytokine-receptor binding mode revealed by the crystal
 RT structure of the IL-1 receptor with an antagonist.";
 RL Nature 386:194-200(1997).
 CC -1- FUNCTION: IL-1RA INHIBITS THE ACTIVITY OF IL-1 BY BINDING TO ITS
 CC RECEPTOR. IL-1RA HAS NO IL-1 LIKE ACTIVITY.
 CC -1- SUBCELLULAR LOCATION: SECRETED OR INTRACELLULAR (THE VARIANT
 CC FORM).
 CC -1- ALTERNATIVE PRODUCTS: 2 ISOFORMS ARE PRODUCED BY ALTERNATIVE
 CC SPLICING.

```
CC CC TISSUE SPECIFICITY: THE INTRACELLULAR FORM OF IL-1RA IS
CC CC PREDOMINANTLY EXPRESSED IN EPITHELIAL CELLS.
CC CC -1 SYMILARITY: BELONGS TO THE IL-1 FAMILY.
CC CC -1 DATABASE: NAME=R&D systems' cytokine source book;
CC CC WWW=http://www.rndsystems.com/cyt/ca/1ilra.html".
CC CC -----
CC CC This SWISS-PROT entry is copyright. It is produced through a collaboration
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CC CC -----
DR DR EMBL: M55646; AAA59138.1; -
DR DR EMBL: M63099; AAB41943.1; -
DR DR EMBL: X52015; CAA36262.1; -
DR DR EMBL: X53296; CAA3786.1; -
DR DR EMBL: X64532; CAA45832.1; -
DR DR EMBL: U65590; AAB92268.1; -
DR DR EMBL: U65590; AAB92270.1; -
DR DR PIR: A30368; A30368.
DR DR PIR: A37822; A37822.
DR DR PIR: S08160; S08160.
DR DR PIR: S08159; S08159.
DR DR PIR: A40956; A40956.
DR DR PIR: A39386; A39386.
DR DR PDB: 1ITN: 30-APR-94.
DR DR PDB: 2IRT: 15-OCT-94.
DR DR PDB: 1IRP: 27-FEB-95.
DR DR PDB: 1ILR: 07-FEB-95.
DR DR PDB: 1ILT: 01-APR-95.
DR DR PDB: 1IRA: 17-JUN-98.
DR DR Aarhus/Ghent-2DPAGE: 7104; IEF.
DR DR Aarhus/Ghent-2DPAGE: 7105; IEF.
DR DR MW: 147679; -.
DR DR InterPro: IPR000975; -.
DR DR Pfam: PF00340; Interleukin-1; 1.
DR DR PROSITE: PS00264; INTERLEUKIN1.
DR DR PROSITE: PS00253; INTERLEUKIN_1; 1.
DR DR Glycoprotein: Signal; Alternative splicing; 3D-structure.
KT KW SIGNAL 1 25
FT FT CHAIN 26 177 INTERLEUKIN-1 RECEPTOR ANTAGONIST
FT FT DISULFID 91 141 PROTEIN.
FT FT CARBOHYD 109 109 N-LINKED (GLCNAC... ) (POTENTIAL).
FT FT VARSPLIC 1 21 MEIOGRLSHLITLLFFHS -> MAL (IN
FT FT SEQUENCE 177 AA; 20055 MW; D1690776A7394057 CNC64;
INTRACELLULAR ISOFORM).
Query Match 38.8%; Score 319.5; DB 1; Length 177;
Best Local Similarity 49.3%; Pred.No. 4.4e-26;
Matches 73; Conservative 13; Mismatches 49; Indels 13; Gaps 4;
QY 9 FRMKSAIKVYLHNNOLLAGSLHGKVIKGSEISVVRNMIDASTSP--VLIGVGGSQ 66
DB 38 FRIMVYNOKTFELRNNOAVAGTLGGPNVNLEKKIDVP-----IEPHALFLGIHSGKM 90
QY 67 CLSC-CGVGOEPTLTLEPAVINIMELYLGAKESKSFPPRYRDMGITSSFSESAAYPGWFLCTVP 125
DB 91 CLSCVKSDDERPLQLQEAIVNTDLSENRRQDKRFATIRSDSGTTTSFESAACPGWFLCTIAM 150
QY 126 FADDPYRLTLQLPENGGMNAPIITDFEQO 153
DB 151 FADDPVSSTLNMPDEG---VMYTKFYFE 175
RESULT 2
ID ILIX_MOUSE STANDARD: PRT; 178 AA.
AC P25085;
DT 01-MAY-1992 (Rel. 22, Created)
```


RESULT 6
IL1X_RABIT
ID IL1X_RABIT STANDARD: PRT: 177 AA.
AC P26850;
DT 01-AUG-1992 (Rel. 23, Created)
DT 01-AUG-1992 (Rel. 23, Last sequence update)
DT 15-DEC-1998 (Rel. 37, Last annotation update)
DE INTERLEUKIN-1 RECEPTOR ANTAGONIST PROTEIN PRECURSOR (IL-1RA) (IL-1RN)
(IRAP)
GN IL1RN OR IL1RA.
OS Oryctolagus cuniculus (Rabbit).
OC Eukaryota; Metazoa; Chordata; Craniata; Euteleostomi;
OC Mammalia; Eutheria; Lagomorpha; Leporidae; Oryctolagus.
OX NCBI_TaxID=9986;
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE=94165101; PubMed=7509813;
RA Cominelli F., Bortolami M., Pizarro T.T., Monsacchi L., Ferretti M.,
RA Brewer M.T., Eisenberg S.P., Ng R.K.;
RT "Rabbit interleukin-1 receptor antagonist. Cloning, expression,
RT functional characterization, and regulation during intestinal
RT inflammation." J. Biol. Chem. 269:6962-6971(1994).
RL J. Biol. Chem. 269:6962-6971(1994).
RN [2]
RP SEQUENCE FROM N.A.
RA Hamada H., Mulligan R.C.;
RL Submitted (XXX-1992) to the EMBL/Genbank/DBJ databases.
RN [3]
RX SEQUENCE FROM N.A.
RX MEDLINE=93052512; PubMed=1427977;
RA Goto F., Goto K., Miyata T., Onkawa S., Takao T., Mori S.,
RA Furukawa S., Maeda T., Iwanaga S., Shimonishi Y., Yoshinaga M.;
RT "Interleukin-1 receptor antagonist in inflammatory exudate cells of
RT rabbits. Production, purification and determination of primary
RT structure." J. Biol. Chem. 267:235-244(1992).
RL Immunology 77:235-244(1992).
CC -1- FUNCTION: IL-1RA INHIBITS THE ACTIVITY OF IL-1 BY BINDING TO ITS
CC RECEPTOR. IL-1RA HAS NO IL-1 LIKE ACTIVITY.
CC -1- SIMILARITY: BELONGS TO THE IL-1 FAMILY.
CC -----
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CC or send an email to license@sib-sib.ch).
CC -----
DR EMBL: S68977; AAB30093.1; -
DR EMBL: M57526; AAA1374.1; -
DR EMBL: D21832; BAA04860.1; -
DR PIR: A54377; A54377.
DR HSSP: P18510; IL1R.
DR InterPro: IPR000975; -
DR Pfam: PF00340; interleukin-1; 1.
DR PRINTS: PR00264; INTERLEUKIN1.
DR PROSITE: PS00253; INTERLEUKIN_1; 1.
KW Glycoprotein; Signal.
FT SIGNAL 1 25
FT CHAIN 26 177
FT FT BY SIMILARITY.
FT FT INTERLEUKIN-1 RECEPTOR ANTAGONIST
FT FT PROTEIN.
FT FT
FT DISULFID 91 141
FT CARBOHYD 109 109 N-LINKED (GLCNAC. . .) (POTENTIAL).
FT CONFLICT 19 19
SEQUENCE 177 AA; 20214 MW; F5BC08F097FEAF CRC64;

Query Match 34.8%; Score 286.5; DB 1; Length 177;
Best Local Similarity 45.9%; Pred. No. 1.2e-22;
Matches 68; Conservative 17; Mismatches 50; Indels 13; Gaps 4;

9 FRKADSAKLVLYLHNNQLAGGLHAGKVIKGEISVPPNRMIDASLSP--VIIQVGGSGQ 66

Db 38 FRIMDVNOKTFYVLRNNQVLGAGVLOGPNAKLEERLDVVP-----LEPOLFLGIORGL 90
Qy 67 CLSC-GVGOEPYTLLEPVNINMELYLGAKESKSTFFRRDMGLSSPESASYPWFCTYP 125
Db 91 CLSCVSGDKMKHLDAVNTTDGLKKNKEODKRPFTIRNSGPTTPESASCDFWLCFTAL 150
Qy 126 EADQPVRLTQLPENGGWNPAPITDFYFQO 153
Db 151 EADQPVSLTTPPD---SIYVTKFYFOE 175

RESULT 7
IL1X_HORSE
ID IL1X_HORSE STANDARD: PRT: 177 AA.
AC 018999; 077745;
DT 15-DEC-1998 (Rel. 37, Created)
DT 15-DEC-1998 (Rel. 37, Last sequence update)
DT 15-JUL-1999 (Rel. 38, Last annotation update)
DE INTERLEUKIN-1 RECEPTOR ANTAGONIST PROTEIN PRECURSOR (IL-1RA) (IL-1RN)
(IRAP).
GN IL1RN OR IL1RA.
OS Equus caballus (Horse).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Perissodactyla; Equidae; Equus.
OX NCBI_TaxID=9796;
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE=97366446; PubMed=9223227;
RA Kato H., Onashi T., Matsushiro H., Watarai T., Goitsuka R.,
RA Tsujimoto H., Hasegawa A.;
RT "Molecular cloning and functional expression of equine interleukin-1
RT receptor antagonist." J.
RL Vet. Immunol. Immunopathol. 56:221-231(1997).
RN [2]
RP SEQUENCE FROM N.A.
RX MEDLINE=98285942; PubMed=9622739;
RA Howard R.D., McIlwraith C.W., Trotter G.W., Nyborg J.K.;
RT "Cloning of equine interleukin-1 receptor antagonist and
RT determination of its full-length cDNA sequence." J.
RL Am. J. Vet. Res. 59:712-716(1998).
CC -1- FUNCTION: IL-1RA INHIBITS THE ACTIVITY OF IL-1 BY BINDING TO ITS
CC RECEPTOR. IL-1RA HAS NO IL-1 LIKE ACTIVITY.
CC -1- SIMILARITY: BELONGS TO THE IL-1 FAMILY.
CC -----
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CC -----
DR EMBL: D83714; BAA2529.1; -
DR EMBL: U92482; AAC39257.1; -
DR InterPro: IPR000975; -
DR Pfam: PF00340; interleukin-1; 1.
DR PRINTS: PR00264; INTERLEUKIN1.
DR PROSITE: PS00253; INTERLEUKIN_1; 1.
KW Glycoprotein; Signal.
FT SIGNAL 1 25
FT CHAIN 26 177
FT FT BY SIMILARITY.
FT FT INTERLEUKIN-1 RECEPTOR ANTAGONIST
FT FT PROTEIN.
FT FT
FT DISULFID 91 141
FT CARBOHYD 109 109 N-LINKED (GLCNAC. . .) (POTENTIAL).
FT CONFLICT 19 19 F->L (IN REF. 2).
SEQUENCE 177 AA; 20459 MW; IABC377F1FCF80B CRC64;

Query Match 33.2%; Score 273.5; DB 1; Length 177;
Best Local Similarity 43.9%; Pred. No. 2.6e-21;
Matches 65; Conservative 18; Mismatches 52; Indels 13; Gaps 4;

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QY 9 FRMKSAKLVLYLHNHNOILAGLGHAKVYIGKEISVWPRMWDASLSP--VILGVQGSQ 66
Db 38 FRIMVYNOKTFYMRNRNOLVAGYLOESNRKLOKIDVP-----IEPDALGLGHRKL 90
QY 67 CLSC-GVGOEPTLLPEVYNIMELVIGAKESFTFYRRDMGLTSSPESANPWFCLTVP 125
Db 91 CLACVKSDEIDTFEOLAVNITDLSSKNKEKRFTEIRNSGFTTSFESMAACPGWFLCTAQ 150
QY 126 EADQPVRLTOLPENGSWNAPITDFEFOQ 153
Db 151 EADRVSLITNKPKF--SPWTKFRLFQE 175

RESULT 8
IL1B_SHEEP STANDARD: PRT: 266 AA.
AC P21621:
DT 01-MAY-1991 (Rel. 18, Created)
DT 01-MAR-1992 (Rel. 21, Last sequence update)
DT 30-MAY-2000 (Rel. 39, Last annotation update)
DE INTERLEUKIN-1 BETA PRECURSOR (IL-1 BETA).
GN IL1B.
OS Ovis aries (sheep).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovidae;
OC Bovidae; Caprinae; Ovis.
OX NCBI_TaxID=9940;
RN [1]
RP SEQUENCE FROM N.A.
RA MEDLINE=92119335; PubMed=1840515;
RA Seow H.F., Kotche J.S., David M.U., Wood P.R.;
RT "Nucleotide sequence of ovine macrophage Interleukin-1 beta cDNA.";
RL DNA Seq. 1:423-426(1991).
[2]
RP SEQUENCE FROM N.A.
RA MEDLINE=91088326; PubMed=2263490;
RA Flikerstrand C., Sargan D.;
RT "Nucleotide sequence of ovine Interleukin-1 beta.";
RL Nucleic Acids Res. 18:7165-7165(1990).
CC -1- FUNCTION: PRODUCED BY ACTIVATED MACROPHAGES, IL-1 STIMULATES
CC THYMOCYTE PROLIFERATION BY INDUCING IL-2 RELEASE, B-CELL
CC MATURATION & PROLIFERATION, & FIBROBLAST GROWTH FACTOR ACTIVITY.
CC IL-1 PROTEINS ARE INVOLVED IN THE INFLAMMATORY RESPONSE, BEING
CC IDENTIFIED AS ENDOGENOUS PYROGENS, AND ARE REPORTED TO STIMULATE
CC THE RELEASE OF PROSTAGLANDIN AND COLLAGENASE FROM SYNOCIAL CELLS.
CC -1- SUBUNIT: MONOMER.
CC -1- DOMAIN: THE SIMILARITY AMONG THE IL-1 PRECURSORS SUGGESTS THAT THE
CC AMINO ENDS OF THESE PROTEINS SERVE SOME AS YET UNDEFINED FUNCTION.
CC -1- MISCELLANEOUS: THE LACK OF A SPECIFIC HYDROPHOBIC SEGMENT IN THE
CC PRECURSOR SEQUENCE SUGGESTS THAT IL-1 IS RELEASED BY DAMAGED CELLS
CC OR IS SECRETED BY A MECHANISM DIFFERING FROM THAT USED FOR OTHER
CC SECRETORY PROTEINS.
CC -1- SIMILARITY: BELONGS TO THE IL-1 FAMILY.
CC -----
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CC or send an email to license@isb-sib.ch).
CC -----
DR EMBL; X54796; CAA38566.1; -.
DR EMBL; X56972; CAA40293.1; -.
DR PIR; S13092; S13092.
DR PIR; S13810; S13810.
DR PIR; S23010; S23010.
DR HSSP; P01584; 411B.
DR InterPro; IPR000975; -.
DR InterPro; IPR002348; -.
DR Pfam; PF00340; interleukin-1; 1.
DR PRINTS; PR00262; IL1HBGF.
DR PRINTS; PR00264; INTERLEUKIN1.

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DR PROSITE: PS00253; INTERLEUKIN_1; 1.
DR Cytokine; Macrophage; Mitogen; Inflammatory response; Pyrogen.
Query Match 17.2%; Score 141.5; DB 1; Length 266;
Best Local Similarity 31.9%; Pred. No. 2e-07;
Matches 43; Conservative 23; Mismatches 54; Indels 15; Gaps 5;
SO SEQUENCE 266 AA; 30717 MW; BDED07B5b224AB78 CMC64;
QY 16 LKVLTLHNOLLAGSLHAGKVIKGEISLVNRRMLDASLSYIIIGVGGSGCISC-GVQG 74
Db 139 LKALHLPSQEMSRREVYFCMSFVGGEDR-----NKIPALSLIRKNNLYLSGVKKGD 189
QY 75 EPTLTLESVNIMETLYLGAKESSFFPYFRDGLTSSFSFSAAYPGWFLCTVPEADPRFLT 134
Db 190 TPTLTGLEVD-PKVPYPRKNMEKRFYFTYELKNTYFEFSVLTPNNYISTSLQLEKRPVFLG 248
QY 135 QLPENGGNADPTDF 149
Db 249 RF--RGGD--ITDF 259
RESULT 9
IL1B.CEREL STANDARD; PRT; 266 AA.
ID IL1B.CEREL
AC P51745;
DT 01-OCT-1996 (Rel. 34, Created)
DT 01-OCT-1996 (Rel. 34, Last sequence update)
DT 30-MAY-2000 (Rel. 39, Last annotation update)
DE INTERLEUKIN-1 BETA PRECURSOR (IL-1 BETA).
GN IL1B.
OS Cervus elaphus (Red deer).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Cervoidae;
OC Cervidae; Cervinae; Cervus.
OX NCBI_TaxId:9860;
[1]
RP SEQUENCE FROM N.A.
RA Lockhart E.A.;
RL Submitted (MAR-1995) to the EMBL/Genbank/DBJ databases.
RC
CC -1- FUNCTION: PRODUCED BY ACTIVATED MACROPHAGES, IL-1 STIMULATES
CC THYMOCYTE PROLIFERATION BY INDUCING IL-2 RELEASE, B-CELL
CC MATURATION & PROLIFERATION, & FIBROBLAST GROWTH FACTOR ACTIVITY.
CC IL-1 PROTEINS ARE INVOLVED IN THE INFLAMMATORY RESPONSE, BEING
CC IDENTIFIED AS ENDOGENOUS PYROGENS, AND ARE REPORTED TO STIMULATE
CC THE RELEASE OF PROSTAGLANDIN AND COLLAGENASE FROM SYNOVIAL CELLS.
CC
CC -1- SUBUNIT: MONOMER.
CC
CC -1- DOMAIN: THE SIMILARITY AMONG THE IL-1 PRECURSORS SUGGESTS THAT THE
CC AMINO ENDS OF THESE PROTEINS SERVE SOME AS YET UNDEFINED FUNCTION.
CC -1- MISCELLANEOUS: THE LACK OF A SPECIFIC HYDROPHOBIC SEGMENT IN THE
CC PRECURSOR SEQUENCE SUGGESTS THAT IL-1 IS RELEASED BY DAMAGED CELLS
CC OR IS SECRETED BY A MECHANISM DIFFERING FROM THAT USED FOR OTHER
CC SECRETORY PROTEINS.
CC
CC -1- SIMILARITY: BELONGS TO THE IL-1 FAMILY.
CC
CC -----
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CC
CC EMBL; U20500; AAA62234.1; -.
DR HSSP; P01584; 1H1B.
DR InterPro; IPR000975; -.
DR InterPro; IPR002348; -.

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RT Identification of an alternatively spliced transcript of equine
RT Interleukin-1 beta.
CC Gene 177:11-16(1996).
CC -1- FUNCTION: PRODUCED BY ACTIVATED MACROPHAGES, IL-1 STIMULATES
CC THYMOCYTE PROLIFERATION BY INDUCING IL-2 RELEASE, B-CELL
CC MATURATION & PROLIFERATION, & FIBROBLAST GROWTH FACTOR ACTIVITY.
CC IL-1 PROTEINS ARE INVOLVED IN THE INFLAMMATORY RESPONSE, BEING
CC IDENTIFIED AS ENDOGENOUS PYROGENS, AND ARE REPORTED TO STIMULATE
CC THE RELEASE OF PROSTAGLANDIN AND COLLAGENASE FROM SYNOVIAL CELLS
CC (BY SIMILARITY).
CC -1- SUBUNIT: MONOMER (BY SIMILARITY).
CC -1- ALTERNATIVE PRODUCTS: TWO FORMS ARE PRODUCED BY ALTERNATIVE
CC SPLICING.
CC -1- DOMAIN: THE SIMILARITY AMONG THE IL-1 PRECURSORS SUGGESTS THAT THE
CC AMINO ENDS OF THESE PROTEINS SERVE SOME AS YET UNDEFINED FUNCTION.
CC -1- MISCELLANEOUS: THE LACK OF A SPECIFIC HYDROPHOBIC SEGMENT IN THE
CC PRECURSOR SEQUENCE SUGGESTS THAT IL-1 IS RELEASED BY DAMAGED CELLS
CC OR IS SECRETED BY A MECHANISM DIFFERING FROM THAT USED FOR OTHER
CC SECRETORY PROTEINS.
CC -1- SIMILARITY: BELONGS TO THE IL-1 FAMILY.
CC -----
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CC or send an email to license@isb-sib.ch).
CC -----
DR EMBL: D42147; BAA07718.1; -
DR EMBL: U92481; AAC39256.1; -
DR EMBL: D42165; BAA22528.1; -
DR InterPro: IPR000975; -
DR InterPro: IPR002348; -
DR Pfam: PF00340; Interleukin-1; 1.
DR PRINTS: PR00262; IL1HBGF.
DR PRINTS: PR00264; INTERLEUKIN1.
DR PROSITE: PS00253; INTERLEUKIN_1; 1.
KW Cytokine; Macrophage; Mitogen; Inflammatory response; Pyrogen;
KW Alternative splicing.
FT PROPEP 1 115 BY SIMILARITY.
FT CHAIN 116 268 INTERLEUKIN-1 BETA.
FT VARSPIC 101 154 MISSING (IN SHORT ISOBORN).
FT CONFLICT 45 45 D -> N (IN REF. 2).
FT CONFLICT 55 55 H -> Q (IN REF. 2).
FT CONFLICT 64 65 AM -> VV (IN REF. 2).
FT CONFLICT 71 71 V -> M (IN REF. 2).
FT CONFLICT 110 111 EG -> DD (IN REF. 2).
FT CONFLICT 118 118 M -> V (IN REF. 2).
FT CONFLICT 245 245 S -> K (IN REF. 2).
SQ SEQUENCE 268 AA; 30268 MW; 336F27792A1542EA CRC64;

Query Match 16.0%; Score 132; DB 1; Length 268;
Best Local Similarity 30.1%; Pred. No. 2e-06;
Matches 46; Conservative 21; Mismatches 64; Indels 22; Gaps 6;

OY 1 MWLSGALCFRMDALKIVYLHNNQLAGLHAGKVIKGEISVYPRNWDASLSFVILG 60
DB 133 LVLSSG-----CELQAVHNGENNTNQVFMQSFVQGE-----ENDKIPVALG 176
OY 61 VGGSGCLSCGYGQ-EPITLTPVNMELYLGAKESKSTFFRRDMLTSSFSAAYPGW 119
DB 177 LKEKNLYLSCGKDGKPTLTQLETVD--PNITYPKRMEKRFVFMKELGNVEFSAMYPW 235
OY 120 FLCTVPEADQVRLTQLPENGGMNAPITDFEFO 152
DB 236 YISTSOAEKSPVFLGN--TRGG--RDITDFIME 264

RESULT 12
IL1B_CAPHI STANDARD; PRT; 266 AA.
IL1B_CAPHI

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AC P79162;
DR 15-DEC-1998 (Rel. 37, Created)
DR 15-DEC-1998 (Rel. 37, Last sequence update)
DR 30-MAY-2000 (Rel. 39, Last annotation update)
DE INTERLEUKIN-1 BETA PRECURSOR (IL-1 BETA).
GN IL1B.
OS Capra hircus (Goat).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovidae;
OC Bovidae; Caprinae; Capra.
OX NCBI_TaxID=9925;
RN [1]
RP SEQUENCE FROM N.A.
RA Takakura H., Hashimoto O., Mori Y., Tatsumi M.;
RT "Molecular cloning and expression of caprine IL-1alpha and
RT IL-1beta".
RL Submitted (JUN-1995) to the EMBL/Genbank/DBJ databases.
CC -1- FUNCTION: PRODUCED BY ACTIVATED MACROPHAGES, IL-1 STIMULATES
CC THYMOCYTE PROLIFERATION BY INDUCING IL-2 RELEASE, B-CELL
CC MATURATION & PROLIFERATION, & FIBROBLAST GROWTH FACTOR ACTIVITY.
CC IL-1 PROTEINS ARE INVOLVED IN THE INFLAMMATORY RESPONSE, BEING
CC IDENTIFIED AS ENDOGENOUS PYROGENS, AND ARE REPORTED TO STIMULATE
CC THE RELEASE OF PROSTAGLANDIN AND COLLAGENASE FROM SYNOVIAL CELLS
CC (BY SIMILARITY).
CC -1- SUBUNIT: MONOMER (BY SIMILARITY).
CC -1- DOMAIN: THE SIMILARITY AMONG THE IL-1 PRECURSORS SUGGESTS THAT THE
CC AMINO ENDS OF THESE PROTEINS SERVE SOME AS YET UNDEFINED FUNCTION.
CC -1- MISCELLANEOUS: THE LACK OF A SPECIFIC HYDROPHOBIC SEGMENT IN THE
CC PRECURSOR SEQUENCE SUGGESTS THAT IL-1 IS RELEASED BY DAMAGED CELLS
CC OR IS SECRETED BY A MECHANISM DIFFERING FROM THAT USED FOR OTHER
CC SECRETORY PROTEINS.
CC -1- SIMILARITY: BELONGS TO THE IL-1 FAMILY.
CC -----
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CC -----
DR EMBL: D63351; BAA09675.1; -
DR InterPro: IPR000975; -
DR InterPro: IPR002348; -
DR Pfam: PF00340; Interleukin-1; 1.
DR PRINTS: PR00262; IL1HBGF.
DR PRINTS: PR00264; INTERLEUKIN1.
DR PROSITE: PS00253; INTERLEUKIN_1; 1.
KW Cytokine; Macrophage; Mitogen; Inflammatory response; Pyrogen.
KW Alternative splicing.
FT PROPEP 1 113 BY SIMILARITY.
FT CHAIN 114 266 INTERLEUKIN-1 BETA.
FT PROPEP 1 113
SQ SEQUENCE 266 AA; 30769 MW; 59F7B39BD1DADA5 CRC64;

Query Match 15.7%; Score 129.5; DB 1; Length 266;
Best Local Similarity 31.1%; Pred. No. 3.5e-06;
Matches 42; Conservative 22; Mismatches 56; Indels 15; Gaps 5;

OY 16 LKVIYLHNNQLAGLHAGKVIKGEISVYPRNWDASLSFVILGSGSGLS-CGYGQ 74
DB 139 LKALHLISQEMREVFVFCMSFVQGEFRD-----KNIPALALIRKKNLYLSWKKG 189
OY 75 EPTLTLEPVNMELYLGAKESKSTFFRRDMLTSSFSAAYPGWFLCTVPEADQVRLT 134
DB 190 TPTLTQLEFVD--PKVYPKRMEKRFVFKELKNVFEFSVLPNMYIISQILEKRPVFLG 248
OY 135 QLPENGGMNAPITDF 149
DB 249 HF--RGGD--ITDF 259

RESULT 13
IL1B_PIG

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ID      IL1B_PIG      STANDARD:      PRT:      267 AA.
AC      P26889;
DT      01-AUG-1992 (Rel. 23, Created)
DT      01-AUG-1992 (Rel. 23, Last annotation update)
DT      30-MAY-2000 (Rel. 39, Last annotation update)
DE      INTERLEUKIN-1 BETA PRECURSOR (IL-1 BETA).
GN      IL1B.
OS      Sus scrofa (Pig).
OC      Eukaryota; Metazoa; Chordata; Vertebrata; Euteleostomi;
OC      Mammalia; Eutheria; Cetartiodactyla; Suina; Suidae; Sus.
OX      NCBI_TaxID=9823;
RN      [1]
RP      SEQUENCE FROM N.A.
RX      MEDLINE=93314975; PubMed=8325511;
RX      Huether M.J., Lin G., Smith D.M., Murtaugh M.P., Mollitor T.W.;
RT      "Cloning, sequencing and regulation of an mRNA encoding porcine
RT      Interleukin-1 beta."
RL      Gene 129:265-289(1993).
CC      -1- FUNCTION: PRODUCED BY ACTIVATED MACROPHAGES, IL-1 STIMULATES
CC      THYMOCYTE PROLIFERATION BY INDUCING IL-2 RELEASE, B-CELL
CC      MATURATION & PROLIFERATION, & FIBROBLAST GROWTH FACTOR ACTIVITY.
CC      IL-1 PROTEINS ARE INVOLVED IN THE INFLAMMATORY RESPONSE, BEING
CC      IDENTIFIED AS ENDOGENOUS PYROGENS, AND ARE REPORTED TO STIMULATE
CC      THE RELEASE OF PROSTAGLANDIN AND COLLAGENASE FROM SYNOVIAL CELLS.
CC      -1- SUBUNIT: MONOMER.
CC      -1- DOMAIN: THE SIMILARITY AMONG THE IL-1 PRECURSORS SUGGESTS THAT THE
CC      AMINO ENDS OF THESE PROTEINS SERVE SOME AS YET UNDEFINED FUNCTION.
CC      MISCELLANEOUS: THE LACK OF A SPECIFIC HYDROPHOBIC SEGMENT IN THE
CC      PRECURSOR SEQUENCE SUGGESTS THAT IL-1 IS RELEASED BY DAMAGED CELLS
CC      OR IS SECRETED BY A MECHANISM DIFFERING FROM THAT USED FOR OTHER
CC      SECRETORY PROTEINS.
CC      -1- SIMILARITY: BELONGS TO THE IL-1 FAMILY.
CC      -----
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CC      or send an email to license@isb-sib.ch).
CC      -----
DR      EMBL: M86725; AAA02584.1; -
DR      PIR: JN0724; JN0724.
DR      HSSP: P01584; I1IB.
DR      InterPro: IPR000975; -
DR      pfam: PF00340; Interleukin-1; 1.
DR      PRINTS: PR00262; IL1HGF.
DR      PRINTS: PR00264; INTERLEUKIN1.
DR      PROSITE: PS00253; INTERLEUKIN_1; 1.
DR      CYTOKINE: Macrophage; Mitogen; Inflammatory response; Pyrogen.
DR      PROSITE: PS00253; INTERLEUKIN_1; 1.
DR      PROPEP 115 267 BY SIMILARITY.
FT      CHAIN 115 267 INTERLEUKIN-1 BETA.
SO      SEQUENCE 267 AA; 30404 MW; 7F6B92B784D5086F CRC64;

Query Match      15.7%; Score 129; DB 1; Length 267;
Best Local Similarity 28.7%; Pred. No. 4e-06;
Matches 43; Conservative 23; Mismatches 62; Indels 22; Gaps 5;

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RESULT 14
ID      IL1B_MACMU      STANDARD:      PRT:      269 AA.
AC      P48050;
DT      01-FEB-1996 (Rel. 33, Created)
DT      01-FEB-1996 (Rel. 33, Last sequence update)
DT      15-DEC-1998 (Rel. 37, Last annotation update)
DE      INTERLEUKIN-1 BETA PRECURSOR (IL-1 BETA).
GN      IL1B.
OS      Macaca mulatta (Rhesus macaque).
OC      Eukaryota; Metazoa; Chordata; Vertebrata; Euteleostomi;
OC      Mammalia; Eutheria; Primates; Catarrhini; Cercopithecoidea;
OC      Cercopithecinae; Macaca.
OX      NCBI_TaxID=9544;
RN      [1]
RP      SEQUENCE FROM N.A.
RX      TISSUE=Blood;
RX      MEDLINE=96003435; PubMed=7561102;
RX      Villingier F.J., Brar S.S., Mayne A.E., Chikkala N., Ansari A.A.;
RT      "Comparative sequence analysis of cytokine genes from human and
RT      nonhuman primates."
RL      J. Immunol. 155:3946-3954(1995).
CC      -1- FUNCTION: PRODUCED BY ACTIVATED MACROPHAGES, IL-1 STIMULATES
CC      THYMOCYTE PROLIFERATION BY INDUCING IL-2 RELEASE, B-CELL
CC      MATURATION & PROLIFERATION, & FIBROBLAST GROWTH FACTOR ACTIVITY.
CC      IL-1 PROTEINS ARE INVOLVED IN THE INFLAMMATORY RESPONSE, BEING
CC      IDENTIFIED AS ENDOGENOUS PYROGENS, AND ARE REPORTED TO STIMULATE
CC      THE RELEASE OF PROSTAGLANDIN AND COLLAGENASE FROM SYNOVIAL CELLS.
CC      -1- SUBUNIT: MONOMER.
CC      -1- DOMAIN: THE SIMILARITY AMONG THE IL-1 PRECURSORS SUGGESTS THAT THE
CC      AMINO ENDS OF THESE PROTEINS SERVE SOME AS YET UNDEFINED FUNCTION.
CC      MISCELLANEOUS: THE LACK OF A SPECIFIC HYDROPHOBIC SEGMENT IN THE
CC      PRECURSOR SEQUENCE SUGGESTS THAT IL-1 IS RELEASED BY DAMAGED CELLS
CC      OR IS SECRETED BY A MECHANISM DIFFERING FROM THAT USED FOR OTHER
CC      SECRETORY PROTEINS.
CC      -1- SIMILARITY: BELONGS TO THE IL-1 FAMILY.
CC      -----
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CC      or send an email to license@isb-sib.ch).
CC      -----
DR      EMBL: U19845; AAA86709.1; -
DR      HSSP: P01584; I1IB.
DR      InterPro: IPR000975; -
DR      pfam: PF00340; Interleukin-1; 1.
DR      PRINTS: PR00262; IL1HGF.
DR      PRINTS: PR00264; INTERLEUKIN1.
DR      PROSITE: PS00253; INTERLEUKIN_1; 1.
DR      CYTOKINE: Macrophage; Mitogen; Inflammatory response; Pyrogen.
DR      PROPEP 117 269 BY SIMILARITY.
FT      CHAIN 117 269 INTERLEUKIN-1 BETA.
SO      SEQUENCE 269 AA; 30481 MW; A7CD59EBAAC120EC7 CRC64;

Query Match      15.4%; Score 127; DB 1; Length 269;
Best Local Similarity 29.7%; Pred. No. 6.5e-06;
Matches 46; Conservative 22; Mismatches 61; Indels 26; Gaps 6;

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Db 237 YISTSQAESMPVFL-----GGTRGGQDITDFTMQ 265

RESULT 15

ID IL1B_MACFA STANDARD: PRT: 268 AA.

AC P79182:

DR 15-JUL-1998 (Rel. 36, Created)

DR 15-JUL-1998 (Rel. 36, Last sequence update)

DR 15-DEC-1998 (Rel. 37, Last annotation update)

DE INTERLEUKIN-1 BETA PRECURSOR (IL-1 BETA).

CN IL1B.

OS Macaca fascicularis (Crab eating macaque) (Cynomolgus monkey).

OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

OC Mammalia; Eutheria; Primates; Catarrhini; Cercopithecoidea;

OC Cercopithecinae; Macaca.

OX NCBI_TaxID=9541;

RM [1]

RP SEQUENCE FROM N.A.

RC TISSUE=Thymus;

RA Totsuka K., Takakura H., Hashimoto O., Tatsumi M.;

RL Submitted (JUL-1995) to the EMBL/GenBank/DBJ databases.

CC -I- FUNCTION: PRODUCED BY ACTIVATED MACROPHAGES. IL-1 STIMULATES

CC THYMOCYTE PROLIFERATION BY INDUCING IL-2 RELEASE, B-CELL

CC MATURATION & PROLIFERATION, & FIBROBLAST GROWTH FACTOR ACTIVITY.

CC IL-1 PROTEINS ARE INVOLVED IN THE INFLAMMATORY RESPONSE, BEING

CC IDENTIFIED AS ENDOGENOUS PYROGENS, AND ARE REPORTED TO STIMULATE

CC THE RELEASE OF PROSTAGLANDIN AND COLLAGENASE FROM SYNOVIAL CELLS.

CC -I- SUBUNIT: MONOMER.

CC -I- DOMAIN: THE SIMILARITY AMONG THE IL-1 PRECURSORS SUGGESTS THAT THE

CC AMINO ENDS OF THESE PROTEINS SERVE SOME AS YET UNDEFINED FUNCTION.

CC -I- MISCELLANEOUS: THE LACK OF A SPECIFIC HYDROPHOBIC SEGMENT IN THE

CC PRECURSOR SEQUENCE SUGGESTS THAT IL-1 IS RELEASED BY DAMAGED CELLS

CC OR IS SECRETED BY A MECHANISM DIFFERING FROM THAT USED FOR OTHER

CC SECRETORY PROTEINS.

CC -I- SIMILARITY: BELONGS TO THE IL-1 FAMILY.

CC -----

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CC or send an email to license@sib-sib.ch).

CC -----

CC EMBL: D63353; BAA09677.1; -

DR HSSP: P01584; IHTB.

DR InterPro: IPR000975; -

DR InterPro: IPR002348; -

DR Pfam: PF00340; Interleukin-1; 1.

DR PRINTS: PR00262; IL1HGF.

DR PRINTS: PR00264; INTERLEUKIN1.

DR PROSITE: PS00253; INTERLEUKIN_1; 1.

DR Cytokine; Macrophage; Mitogen; Inflammatory response; Pyrogen.

FT PROPEP 1 116 BY SIMILARITY

FT CHAIN 117 268 INTERLEUKIN-1 BETA

FT SEQUENCE 268 AA; 30425 MM; CEB726E3E2C05B4 CRC64;

SO

Query Match 15.3%; Score 126; DB 1; Length 268;

Best Local Similarity 29.7%; Pred. No. 8.2e-06;

Matches 46; Conservative 21; Mismatches 62; Indels 26; Gaps 6;

OY 1 NVLSGALCFRMKDSALKVLYLNNOLLAGLHAGKVIKGEISVYPNRLDASLSPVILG 60

DB 134 LVMSGPR-----ELKALHLOGDLEQOVFSMSFVGEESN-----DKIPVALG 177

OY 61 VGGSGQCLSCGV-GQEPITLTPVNIEMELYLAKESKSTFYRRDMGLTSSFEASAIPGM 119

DB 178 LKAKMLYLSGVKLDKDKPTLQLEQVSD-PKNYPRKKMEKRFVFNKIEINNKLEFEESAQFPNM 236

OY 120 FLCTVPEADQPVRLTQLPENGGMNA--PLTDFYFQ 152

Db 237 YISTSQAESMPVFL-----GGTRGGQDITDFTMQ 265

Search completed: June 25, 2001, 14:07:54
Job time: 146 sec

GenCore version 4.5
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OM protein - protein search, using sw model

Run on: June 25, 2001, 14:05:43 ; Search time 22.28 Seconds
(without alignments)
920.434 Million cell updates/sec

Title: US-09-612-921-4
Perfect score: 823
Sequence: 1: MYLSGALCFRMRKDSALKVLY.....LPENGMNAPITDFYQOCD 155

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 425026 seqs, 132305027 residues
Total number of hits satisfying chosen parameters: 425026

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database :
1: SPREMBL_16:*
2: SP_archaea:*
3: SP_bacteria:*
4: SP_fungi:*
5: SP_human:*
6: SP_invertebrate:*
7: SP_mammal:*
8: SP_mhc:*
9: SP_organelle:*
10: SP_phage:*
11: SP_plant:*
12: SP_rodent:*
13: SP_unclassified:*
14: SP_vertebrate:*
15: SP_virus:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	823	100.0	155	4	Q9UBH0
2	734	89.2	155	11	Q9GYX1
3	734	89.2	156	11	Q9JIG2
4	319.5	38.8	143	4	Q9UPC0
5	319.5	38.8	180	4	Q14628
6	308.5	37.5	159	11	Q70207
7	303.5	37.1	177	6	Q9GK24
8	281.5	34.2	176	6	Q9GK24
9	200.5	24.4	157	4	Q9UHA5
10	189.5	23.0	72	6	Q77771
11	186.5	22.7	160	11	Q9JIA2
12	185.5	22.5	158	4	Q9UHA7
13	172.5	21.0	192	4	Q9UHA6
14	172.5	21.0	218	4	Q9NZH6
15	172.5	21.0	218	4	Q9HBF3
16	172	20.9	169	4	Q9NZH8
17	166	20.2	267	13	Q73909
18	164.5	20.0	178	4	Q9HBF2
19	133	16.2	283	13	Q9PVZ5

20	130	15.8	267	6	Q29082	Q29082 sus scrofa
21	125	15.2	260	13	Q9YGD3	Q9YGD3 oncorhynch
22	123.5	15.0	269	6	Q9X577	Q9X577 trichosurus
23	123	14.9	153	4	Q43645	Q43645 homo sapien
24	119.5	14.5	266	6	Q9TTR1	Q9TTR1 tursiops tr
25	116	14.1	266	11	Q9WVG1	Q9WVG1 cavia porce
26	114	13.9	254	13	Q9PT12	Q9PT12 oncorhynch
27	113.5	13.8	118	6	Q9RSJ0	Q9RSJ0 equus caball
28	113	13.7	276	13	Q57398	Q57398 cyprinus ca
29	113	13.7	276	13	Q9PW18	Q9PW18 cyprinus ca
30	112.5	13.7	272	13	Q9DDF3	Q9DDF3 cyprinus ca
31	109.5	13.3	272	13	Q9DDF2	Q9DDF2 cyprinus ca
32	80.5	9.8	1230	13	Q9YIA5	Q9YIA5 cyprinus ca
33	80.5	9.8	1272	13	Q90924	Q90924 gallus gall
34	80.5	9.8	1369	13	Q42414	Q42414 gallus gall
35	80	9.7	364	10	Q49364	Q49364 arabidopsis
36	80	9.7	680	1	Q58374	Q58374 methanococ
37	80	9.7	836	4	Q94856	Q94856 homo sapien
38	80	9.7	1151	11	Q9QVN5	Q9QVN5 rattus sp.
39	79.5	9.7	233	2	P94148	P94148 aeromonas h
40	79.5	9.7	1217	11	P97685	P97685 rattus norv
41	79.5	9.7	2352	2	Q9HYR8	Q9HYR8 pseudomonas
42	78	9.5	2970	14	Q56073	Q56073 heparitis g
43	76	9.2	109	2	Q9EIA6	Q9EIA6 uncultured
44	76	9.2	889	2	Q9RIR8	Q9RIR8 salmonella
45	76	9.2	895	2	Q9XDS2	Q9XDS2 salmonella

ALIGNMENTS

RESULT 1
Q9UBH0 PRELIMINARY; PRT; 155 AA.
ID Q9UBH0;
AC Q9UBH0;
DT 01-MAY-2000 (TREMREL. 13, Created)
DT 01-MAY-2000 (TREMREL. 13, Last sequence update)
DT 01-MAR-2001 (TREMREL. 16, Last annotation update)
DE FLII DELTA (INTERLEUKIN-1 LIKE PROTEIN 1) (INTERLEUKIN-1 RECEPTOR ANTAGONIST HOMOLOG 1) (INTERLEUKIN-1 DELTA).
GN IL1HL1 OR IL1L1.
OS Homo sapiens (Human).
OC Eukaryota; Metazoa; Chordata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Primates; Catarrhini; Hominoidea; Homo.
OX NCBI_TaxID=9606;
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE=20092888; PubMed=10625660;
RA Smith D.E., Renshaw B.R., Ketchum R.R., Rubin M., Garza K.E., Sims J.E.;
RT "Four New Members Expand the IL-1 Superfamily.";
RL J. Biol. Chem. 275:1169-1175(2000).
RN [2]
RP SEQUENCE FROM N.A.
RX MEDLINE=99443727; PubMed=10512743;
RA Mulero J.J., Pace A.M., Nelson S.T., Loeb D.B., Correa T.R., Drmanac R., Ford J.E.;
RT "IL1HL1: A Novel Interleukin-1 Receptor Antagonist Gene.";
RL Biochem. Biophys. Res. Commun. 263:702-706(1999).
RN [3]
RP SEQUENCE FROM N.A.
RX TISSUE=PLACENTA;
RA Barton J.L., di Giovine F.S., Symons J.A., Nicklin M.J.H.;
RT "A tissue specific interleukin-1 receptor antagonist homolog from the IL1 cluster lacks IL-1, IL-1ra, IL-18 and IL-18ra activities.";
RL Submitted (JUN-1999) to the EMBL/GenBank/DBJ databases.
RN [4]
RP SEQUENCE FROM N.A.
RX Barton J.L., Herbst R., Bosisto D., Nicklin M.J.H.;
RT "A tissue specific interleukin-1 receptor antagonist homolog from the IL-1 cluster lacks IL-1, IL-1ra, IL-18 and IL-18ra activities.";
RL Submitted (JAN-2000) to the EMBL/GenBank/DBJ databases.
RN [5]

RP SEQUENCE FROM N.A.
 RX MEDLINE-20322477; PubMed-10866108;
 RA Mulero J.J., Nelken S.T., Ford J.E.;
 RT "Organization of the Human Interleukin-1 Receptor Antagonist Gene
 RL IL1HL1";
 RL Immunogenetics 51:425-428(2000).
 RN [6]
 RP SEQUENCE FROM N.A.
 RA Debets R., Timans J.C., Zurawski S., Sana T.R., Bazan F.,
 RA Kastellein R.A.;
 RT "Novel IL-1 ligands IL-1d and IL-1e use IL-1R related protein 2";
 RL Submitted (FEB-2000) to the EMBL/Genbank/DBJ databases.
 DR EMBL; AF201830; AAF25210.1; -;
 DR EMBL; AF186094; AAF02757.1; -;
 DR EMBL; AJ242737; CAB59822.1; -;
 DR EMBL; AJ242738; CAB59823.1; -;
 DR EMBL; AJ271338; CAB67704.1; -;
 DR EMBL; AF216693; AAF76981.1; -;
 DR EMBL; AF230377; AAF91274.1; -;
 DR HSSP; P18510; 1ILR.
 DR InterPro; IPR000975; -;
 DR Pfam; PF00340; IL1; 1.
 DR PRINTS; PR00264; INTERLEUKIN1.
 DR PROSITE; PS00253; INTERLEUKIN_1; UNKNOWN_1.
 DR SMART; SM00125; IL1; 1.
 DR Receptor.
 KW SEQUENCE 155 AA; 16962 MW; B96DB5EFA2612E25 CRC64;

Query Match 100.0%; Score 823; DB 4; Length 155;
 Best Local Similarity 100.0%; Pred. No. 3.3e-76;
 Matches 155; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

OY 1 MYSGALCFRMDKSAKLYLHNNOLLAGGLHAGVYKGEESVYVNRDLASLSPVILG 60
 DB 1 MYSGALCFRMDKSAKLYLHNNOLLAGGLHAGVYKGEESVYVNRDLASLSPVILG 60
 OY 61 VOGSGCISCAGVGEPTLTLEPVNIMELYLGAKESKSFYFRDGLTSSFSAAVPGWF 120
 DB 61 VOGSGCISCAGVGEPTLTLEPVNIMELYLGAKESKSFYFRDGLTSSFSAAVPGWF 120
 OY 121 LCTVPEADQPVRLTQLPENGWNNAPITDFYFOOCD 155
 DB 121 LCTVPEADQPVRLTQLPENGWNNAPITDFYFOOCD 155
 RESULT 2
 ID 090Y1 PRELIMINARY; PRT; 155 AA.
 AC 090Y1;
 DT 01-MAY-2000 (TREMBLrel. 13, Created)
 DT 01-MAY-2000 (TREMBLrel. 13, last sequence update)
 DT 01-MAR-2001 (TREMBLrel. 16, last annotation update)
 DE IL-1L1 PROTEIN (INTERLEUKIN-1 HOMOLOG 3).
 OS Mus musculus (Mouse).
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Mus.
 NCBI_TaxID=10090;
 RN [1]
 RP SEQUENCE FROM N.A.
 RA Barton J.L., Nicklin M.J.H.;
 RT "IL-1L1: A Novel Member of the Interleukin-1 Gene Family is Expressed
 RL in Trophoblasts and Macrophages";
 RL Submitted (OCT-1999) to the EMBL/Genbank/DBJ databases.
 RP SEQUENCE FROM N.A.
 RX MEDLINE-20209405; PubMed-10744718;
 RA Kumar S., McDonnell P.C., Lehr R., Tierney L., Tzimas M.N.,
 RA Griswold D.E., Capper E.A., Tal-Singer R., Wells G.I., Doyle M.L.,
 RA Young P.R.;
 RT "Identification and initial characterization of four novel members of
 RL the interleukin-1 family";
 RL J. Biol. Chem. 275:10308-10314(2000).

DR EMBL; AJ250429; CAB59831.1; -;
 DR EMBL; AF200495; AAF69251.1; -;
 DR HSSP; P18510; 1ILR.
 DR InterPro; IPR000975; -;
 DR Pfam; PF00340; IL1; 1.
 DR PRINTS; PR00264; INTERLEUKIN1.
 DR PROSITE; PS00253; INTERLEUKIN_1; 1.
 DR SMART; SM00125; IL1; 1.
 KW SEQUENCE 155 AA; 17004 MW; AAH1770F2E12533A CRC64;

Query Match 89.2%; Score 734; DB 11; Length 155;
 Best Local Similarity 91.0%; Pred. No. 3.8e-67;
 Matches 141; Conservative 4; Mismatches 10; Indels 0; Gaps 0;

OY 1 MYSGALCFRMDKSAKLYLHNNOLLAGGLHAGVYKGEESVYVNRDLASLSPVILG 60
 DB 1 MYSGALCFRMDKSAKLYLHNNOLLAGGLHAGVYKGEESVYVNRDLASLSPVILG 60
 OY 61 VOGSGCISCAGVGEPTLTLEPVNIMELYLGAKESKSFYFRDGLTSSFSAAVPGWF 120
 DB 61 VOGSGCISCAGVGEPTLTLEPVNIMELYLGAKESKSFYFRDGLTSSFSAAVPGWF 120
 OY 121 LCTVPEADQPVRLTQLPENGWNNAPITDFYFOOCD 155
 DB 121 LCTVPEADQPVRLTQLPENGWNNAPITDFYFOOCD 155
 RESULT 3
 ID 09JIG2 PRELIMINARY; PRT; 156 AA.
 AC 09JIG2;
 DT 01-OCT-2000 (TREMBLrel. 15, Created)
 DT 01-OCT-2000 (TREMBLrel. 15, last sequence update)
 DT 01-MAR-2001 (TREMBLrel. 16, last annotation update)
 DE INTERLEUKIN-1 DELTA.
 OS Mus musculus (Mouse).
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Mus.
 NCBI_TaxID=10090;
 RN [1]
 RP SEQUENCE FROM N.A.
 RA Debets R., Timans J.C., Zurawski S., Sana T.R., Bazan F.,
 RA Kastellein R.A.;
 RT "Novel IL-1 ligands IL-1d and IL-1e use IL-1R related protein 2";
 RL Submitted (FEB-2000) to the EMBL/Genbank/DBJ databases.
 DR EMBL; AF230378; AAF91275.1; -;
 DR InterPro; IPR000975; -;
 DR Pfam; PF00340; IL1; 1.
 DR PRINTS; PR00264; INTERLEUKIN1.
 DR PROSITE; PS00253; INTERLEUKIN_1; 1.
 DR SMART; SM00125; IL1; 1.
 KW SEQUENCE 156 AA; 17136 MW; AAD1E2F93CF77A7 CRC64;

Query Match 89.2%; Score 734; DB 11; Length 156;
 Best Local Similarity 91.0%; Pred. No. 3.8e-67;
 Matches 141; Conservative 4; Mismatches 10; Indels 0; Gaps 0;

OY 1 MYSGALCFRMDKSAKLYLHNNOLLAGGLHAGVYKGEESVYVNRDLASLSPVILG 60
 DB 2 MYSGALCFRMDKSAKLYLHNNOLLAGGLHAGVYKGEESVYVNRDLASLSPVILG 61
 OY 61 VOGSGCISCAGVGEPTLTLEPVNIMELYLGAKESKSFYFRDGLTSSFSAAVPGWF 120
 DB 62 VOGSGCISCAGVGEPTLTLEPVNIMELYLGAKESKSFYFRDGLTSSFSAAVPGWF 121
 OY 121 LCTVPEADQPVRLTQLPENGWNNAPITDFYFOOCD 155
 DB 122 LCTVPEADQPVRLTQLPENGWNNAPITDFYFOOCD 156

RESULT 4

Gy		9	FPMDSALKVLYLHNNGLAGLGHLGKAGYIKGEISIVPNRMIDASLPYLILGYQSGSOCL	68
Dd		20	FRIMDTNCKFYFLLKNNOVLNGVYLOGPNIKLKEELIDWVP-----IDLHSVFLEIGHGGKLC	74
Oy		69	SCG-VGOEPTLTLEPVIMELYLGAKESKSFTYPRRDMIGTSSFSASAAPGMFLCTVPEA	127
Db		75	SCASGDGIKOLEEVAVITDLSNKNEDEKDFRTIRSEKGFSTTSFEESAACPGRMFLCTITLEA	134
Oy		128	DQPRLTLQLPENGSWNP--ITDPYPQQ	153
Db		135	DRPYSLNTTPEE----PLIVTKFYFOE	157
RESULT	7			
O9GMZ4	ID	O9GMZ4	PRELIMINARY;	PRT; 177 AA.
AC	O9GMZ4;			
DT	01-MAR-2001 (TREMBLrel,	16,	Created)	
DT	01-MAR-2001 (TREMBLrel,	16,	Last sequence update)	
DT	01-MAR-2001 (TREMBLrel,	16,	Last annotation update)	
DE	INTERLEUKIN-1 RECEPTOR ANTAGONIST.			
GN	IL-1RA.			
OS	Tursiops truncatus (Atlantic bottie-nosed dolphin).			
OC	Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;			
OC	Mammalia; Eutheria; Cetartiodactyla; Cetacea; Odontoceti; Delphinidae;			
CC	Tursiops.			
OC	NCBL_TaxID=9739;			
RN	[1]			
RP	SEQUENCE FROM N.A.			
RA	Inoue Y., Itou T., Sakai T.;			
RT	"Cloning and Sequencing of a Bottle-Nosed Dolphin Interleukin-1 Receptor Antagonist.";			
RL	Submitted (FEB-2000) to the EMBL/Genbank/DDbj databases.			
KM	EMBL; AB038268; BABI1806.1;	-		
DR	Receptor .			
QC	SEQUENCE	177 AA;	19923 MW;	6FD19A06C09B13IB CRC64;

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Query Match          37.1%; Score 305.5; DB 6; Length 177;
Best Local Similarity 48.0%; Pred No. 1.9e-23;
Matches 71; Conservative 13; Mismatches 51; Indels 13; Gaps

QY      9 FRMKDSALKVLYLHNNQGLAGLGHAKYIKGEISVWPNRWLDASLP--VLIVGOGGSQ 66
           || : || | || | : || | | : || | | : || | |
Db       38 FRIMDVNQKTFYLRRNQQVAVGYLGPPNRKLEEKIDVP-----IEHPAMFLGIHGK 90

QY      67 CLSC-GVGQEPFLITLPEPVINMELYIGANESEKFTYRRRMGLTSSPESAAFYGMFLCTYP 125
           || : || : || | || | : || : || : || : || : || : || : ||
Db       91 CLACXKSGDEIKLTGLEPVNIITDLSNKKEEDKKRFARIRSDSPGTSPESNAACGWLFCTAL 150

QY      126 EADDPVRLTOLPENGCWMAPIIDPFYFOO 153
           | |||| | | : : |||||
Db       151 ETDPDVGLTNTPODA---VQYTKFFFOO 175

RESULT      8
O9GKK2      ID O9GKK2 PRELIMINARY; PRT; 176 AA.
AC O9GKK2;
DT 01-MAR-2001 (TREMBLrel. 16, Created)
DT 01-MAR-2001 (TREMBLrel. 16, Last sequence update)
DT 01-MAR-2001 (TREMBLrel. 16, Last annotation update)
DE INTERLEUKIN-1 RECEPTOR ANTAGONIST".
OS Canis familiaris (Dog)
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Carnivora; Fissipedia; Canidae; Canis.
OX NCBI_Taxid=9615;
RN [1]
RP SEQUENCE FROM N.A.
RA Campbell S.E., Nasir L., Argyie D.J., Gault E., Bennett D.;
RT "Canine IL-1 Receptor Antagonist cDNA Sequence.";
RL Submitted (DEC-1999) to the EMBL/GenBank/DBJ databases.
```

DR	EMBL:	AF216526;	AAG36777.1; -.
KW	Receptor		
SO	SEQUENCE	176 AA;	19938 MW; 8486CA54A254206B CRC64;
	Query Match	34.2%;	Score 281.5; DB 6; Length 176;
	Best Local Similarity	45.9%;	Pred. No. 5,3e-21;
	Matches	68; Conservative	13; Mismatches 54; Indels 13; Gaps 4;
Oy	9 FRMKDSALKVLYLHNNQILLAGGLHAGKYIKGEISVVPNRMLDASLP--VILGVQGSGQ	66	
Db	38 FRIMVNOKTFYLRNNOIVAGYLQGSNTKLEKTLVVP-----VEPHAVFLIHGGKL	90	
Oy	67 CLSC-GVGQEPILLPEPVINMELYGAKESKFYYRRMGILTSSFESAAYGWFLCTYP	125	
Db	91 CLACKVSDETRLOALEAVANITDLSSKNKODKKFETLTLDSPGPTTFSFAACGFWLCTAL	150	
Oy	126 EADQPVRLTQLPENGGMVAPIIDFYEQQ	153	
Db	151 EADRVLSTLNRPEDA---MWTYKFTFFOK	175	

RESULT	9		
Q9UHA5		PRELIMINARY;	PRT; 157 AA.
ID	Q9UHA5		
AC	Q9UHA5;		
DT	01-MAY-2000 (TREMBLrel. 13, Created)		
DT	01-MAY-2000 (TREMBLrel. 13, Last sequence update)		
DT	01-MAR-2001 (TREMBLrel. 16, Last annotation update)		
DE	FIL1 EA.		
OS	Homo sapiens (Human).		
OC	Eukaryota; Metazoa; Chordata; Vertebrata; Euteleostomi;		
OC	Mammalia; Eutheria; Primates; Catarrhini; Homiidae; Homo.		
OX	NCBI_TaxID=9606;		
RN	[1]		
RP	SEQUENCE FROM N.A.		
RX	MEDLINE=20092888; PubMed=10625660;		
RA	Smith J.D.E., Renshaw B.R., Ketchum R.R., Kubin M., Garika K.E.,		
RA	Sims J.E.;		
RT	"Four New Members Expand the IL-1 Superfamily.";		
RL	J. Biol. Chem. 275:1169-1175(2000).		
DR	EMBL; AF201833; AAF25213.1; -.		
DR	HSSP; P10749; 2MTB.		
DR	InterPro; IPR000975; -.		
DR	Pfam; PF00340; IL1.1.		
DR	PRINTS; PS00264; INTERLEUKIN1.		
DR	PROSITE; PS00253; INTERLEUKIN_1; UNKNOWN_1.		
DR	SMART; SM00125; IL1.1.		
QO	SEQUENCE 157 AA; 17702 MW; 7A54F3D7557A33EE3 CRC64;		

	Query Match	24.4%;	Score 200.5;	DB 4;	Length 157;
	Best Local Similarity	35.1%;	Pred. No.8.2e-13;		
	Matches	54;	Conservative	24;	Mismatches 61; Indels 15; Gaps 6;
QY	9 FRMKDSALKVYLHNNQLAGLHGAKYIKGEIISVEPNRWIDASLSP-----YILGVO 62	:	: : :	:	: :
Dd	12 YAIRSRQMWMLSGNSLIAPL--SRSLKPYTLHLINCR--DTEFSDEKGNMYYLGIK 67	:	: : :	:	: :
QY	63 GGSQCLSCG-VGQEPTLTLEPVNIMELYLGAKESKSFPPYRRDMGLTSSFESAAYPGWFL 121	:	: : :	:	: :
Dd	68 GKDLICFAEALOGKPTLODKERKNIMDELVEYKAOKRPFLEFHNRKESTSVFGSVPSPGWFI 127	:	: : :	:	: :
QY	122 CTVPBADQPVRULTQLPENGGMNAPIITDDYPFOCCD 155	:	: : :	:	: :
Dd	128 ATSTTGQPIPLTK--ERGITNN--TNFYLDSE 157	:	: : :	:	: :
RESULT	10				
ID	077771				
AC	077771;	PRELIMINARY;	PRT;	72 AA.	
DT	01-NOV-1998 (TREMBLere1_08, Created)				

DT 01-NOV-1998 (TREMBLrel. 08, last sequence update)
DT 01-MAR-2001 (TREMBLrel. 16, last annotation update)
DE INTERLEUKIN-1 RECEPTOR ANTAGONIST SECRETORY FORM (FRAGMENT).
GN IL-1RA.
OC Equus caballus (Horse).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Perissodactyla; Equidae; Equus.
OX NCBI_TaxID=9796;
RN (1)
RP SEQUENCE FROM N.A.
RC STRAIN-BRED THOROUGHBRED;
RA Dhar A.K., Thompson M.S., Paradis M.R., Alciavarr Warren A.;
RT "Molecular Characterization of Equine Interleukin 1 Receptor
Antagonist (IL-1ra) Gene."
RL Submitted (JUN-1998) to the EMBL/GenBank/DBJ databases.
DR EMBL: AF072476; AAC62237.1; -
DR HSSP: P18510; 1IRA.
DR InterPro: IPR000975; -
DR Pfam: PF00340; IL1; 1.
DR PRINTS: PR00264; INTERLEUKIN1.
DR PROSITE: PS00253; INTERLEUKIN_1; 1.
DR SMART: SM00125; IL1; 1.
FT NON_TER 1
SQ SEQUENCE 72 AA; 8215 MW; 290CC9B9D4C413D9 CRC64;

Query Match 23.0%; Score 189.5; DB 6; Length 72;
Best Local Similarity 53.4%; Pred. No. 4.2e-12;
Matches 39; Conservative 10; Mismatches 21; Indels 3; Gaps 1;

QY 81 EPNVIMELYLGAKESKSFYRRDMGLTSSFESANPGWFLCTVPEADQPVRLTQLPENG 140
DB 1 EAVNIDLSKNKEKRFRTFRSNGPFTSFESAACPGWFLCTAQAEDRPVSLNKRKE- 59
QY 141 GMAPIITDEFEQ 153
DB 60 -SFWVTKFYFQE 70

RESULT 11
Q9JIA2 PRELIMINARY; PRT; 160 AA.
AC Q9JIA2; 01-OCT-2000 (TREMBLrel. 15, Created)
DT 01-OCT-2000 (TREMBLrel. 15, last sequence update)
DT 01-MAR-2001 (TREMBLrel. 16, last annotation update)
DE INTERLEUKIN-1 HOMOLOG 1 (INTERLEUKIN-1 EPSILON).
GN IL1E.
OS Mus musculus (Mouse).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
OX NCBI_TaxID=10090;
RN (1)
RP SEQUENCE FROM N.A.
RX MEDLINE=20209405; PubMed=10744718;
RA Kumar S., McDonnell P.C., Lehr R., Tierney L., Tzimas M.N.,
RA Griswold D.E., Capper E.A., Tal-Singer R., Wells G.I., Doyle M.L.,
RA Young P.R.;
RT "Identification and initial characterization of four novel members of
the interleukin-1 family."
RL J. Biol. Chem. 275:10308-10314(2000).
RN (2)
RP SEQUENCE FROM N.A.
RA Debets R., Timans J., Zurawski S., Bazan J.F., Kastelein R.A.;
RT "Novel IL-1 family member IL-1e responds through the orphan IL-1R-
related protein 2; response is antagonized by IL-1d."
RL Submitted (NOV-1999) to the EMBL/GenBank/DBJ databases.
DR EMBL: AF200493; AAF69249.1; -
DR EMBL: AF206697; AAG35671.1; -
DR InterPro: IPR000975; -
DR Pfam: PR00340; IL1; 1.
DR PRINTS: PR00264; INTERLEUKIN1.
DR SMART: SM00125; IL1; 1.

SQ SEQUENCE 160 AA; 18015 MW; AA0434D68FF62P4A CRC64;

Query Match 22.7%; Score 186.5; DB 11; Length 160;
Best Local Similarity 36.2%; Pred. No. 2.2e-11;
Matches 54; Conservative 24; Mismatches 50; Indels 21; Gaps 6;

QY 11 MKDSALKVLILHNNOLAGLHAGKVIKGE-----TSVPMNMLDASLS----PVILGV 61
DB 17 VQDLSRWILQNNILTA-----VPRKEQYVPTITLPCQYLDLLENRQDPITMGV 69

QY 62 QGGSQCISCGV-GQEPVLTLEPVNIMELYLGAKESKSFYRRDMGLTSSFESANPGWF 120
DB 70 QRPWSCLEFCKDGEQPVQLGEGNIMEMYNKKRPVKASLFYHKKSGYTSFESANPGWF 129

QY 121 LCTVPEADQPVRLTQLPENGMAPIITDF 149
DB 130 IAVCSKSGCPILITQ--ELG--ELFITDF 154

RESULT 12
Q9UHA7 PRELIMINARY; PRT; 158 AA.
AC Q9UHA7; 01-MAY-2000 (TREMBLrel. 13, Created)
DT 01-MAY-2000 (TREMBLrel. 13, last sequence update)
DT 01-MAR-2001 (TREMBLrel. 16, last annotation update)
DE FIL1 EPSILON.
OS Homo sapiens (Human).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Primates; Catarrhini; Homiidae; Homo.
OX NCBI_TaxID=9606;
RN (1)
RP SEQUENCE FROM N.A.
RX MEDLINE=20092888; PubMed=10625660;
RA Smith D.E., Kenschaw B.R., Ketchum R.R., Rubin M., Garika K.E.,
RA Sims J.E.;
RT "Four New Members Expand the IL-1 Superfamily."
RL J. Biol. Chem. 275:1169-1175(2000).
DR EMBL: AF201831; AAF25211.1; -
DR HSSP: P18510; 1IRA.
DR InterPro: IPR000975; -
DR Pfam: PF00340; IL1; 1.
DR PRINTS: PR00264; INTERLEUKIN1.
DR SMART: SM00125; IL1; 1.
SQ SEQUENCE 158 AA; 17684 MW; 469AC84306B0E280 CRC64;

Query Match 22.5%; Score 185.5; DB 4; Length 158;
Best Local Similarity 44.8%; Pred. No. 2.8e-11;
Matches 43; Conservative 13; Mismatches 35; Indels 5; Gaps 3;

QY 55 SPVILGVQGSQCISCG-VQEPVLTLEPVNIMELYLGAKESKSFYRRDMGLTSSFES 113
DB 61 NPVILGILGILNLCIMCAKVGDDPTQLKEDIMLYNQDPVKSFLFHYHSGSRNSTFES 120

QY 114 AAYPGWFLCTVPEADQPVRLTQLPENGMAPIITDF 149
DB 121 VAFPGWFIIVSSBGGCPILITQ--ELG--KANITDF 152

RESULT 13
Q9UHA6 PRELIMINARY; PRT; 192 AA.
AC Q9UHA6; 01-MAY-2000 (TREMBLrel. 13, Created)
DT 01-MAY-2000 (TREMBLrel. 13, last sequence update)
DT 01-MAR-2001 (TREMBLrel. 16, last annotation update)
DE FIL1 ZETA.
OS Homo sapiens (Human).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Primates; Catarrhini; Homiidae; Homo.
OX NCBI_TaxID=9606;

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[1]
SEQUENCE FROM N.A.
MEDLINE-20092888; PubMed-10625660;
Smith D.E., Renshaw B.R., Ketchum R.R., Kubin M., Garke K.E.,
Sims J.E.;
"Four New Members Expand the IL-1 Superfamily.";
J. Biol. Chem. 275:1169-1175(2000).
DR EMBL: AF201832; AAF25212.1; -.
DR HSP: E18510; 117N.
DR InterPro: IPR000975; -.
DR Pfam: PF00340; IL1; 1.
DR PRINTS: PR00264; INTERLEUKIN1.
DR SMART: SM00125; IL1; 1.
SQ SEQUENCE 192 AA; 21543 MW; 4AF584C81802E612 CRC64;

Query Match
Best Local Similarity 36.7%; Pred. No. 7.4e-10;
Matches 51; Conservative 21; Mismatches 56; Indels 11; Gaps 6;

OY 9 FRMKDSALVLYLHNNQLAGLHAGKVIKGEISVYPNRMIDLASL---SPVILGYOGGS 65
DB 34 FSIHDDHVLVLDLSDGNLA--VPDKNYIRPELFFALASSLSASAEKSGPILIGVSKGE 91
OY 66 QCLSC--GVGQ-EPTLTLEPVNIMELYLAKES--KSFIFYRDMGLTSSFSAAYPGWF 120
DB 92 FCLYCDKDGQSHPSIQLKKEKIMKL-AAOKESARRPFIYRAOVGSWMLESAAHPGWF 150
OY 121 LCTVPEADQPVRLTQLPEN 139
DB 151 ICTSCNCPNEPVGTDKFEN 169

RESULT 14
OQNZH6 PRELIMINARY; PRT; 218 AA.
AC OQNZH6;
DT 01-OCT-2000 (TREMBLrel. 15, Created)
DT 01-OCT-2000 (TREMBLrel. 15, Last sequence update)
DT 01-MAR-2001 (TREMBLrel. 16, Last annotation update)
DE INTERLEUKIN-1 HOMOLOG 4 (IL-1X PROTEIN) (INTERLEUKIN-1-RELATED PROTEIN LONG ISOFORM A).
OS Homo sapiens (Human).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Primates; Catarrhini; Homiidae; Homo.
OX NCBI_TaxId=9606;
RN [1]
RP SEQUENCE FROM N.A.
RC TISSUE=FETAL LUNG; FETAL TESTIS; FETAL B-CELL; AND FETAL COLON;
RX MEDLINE-20209405; PubMed-10744718;
RA Kumar S., McDonnell P.C., Lehr R., Tierney L., Tzimas M.N.,
RA Griswold D.E., Capper E.A., Tal-Singer R., Wells G.I., Doyle M.L.,
RA Young P.R.;
"Identification and Initial Characterization of four novel members of
the interleukin-1 family.";
J. Biol. Chem. 275:10308-10314(2000).
RN [2]
RP SEQUENCE FROM N.A.
RC TISSUE=COLON CARCINOMA;
RA Manoj P.P., Mantovani A., Muzio M.;
RL Submitted (Jul-1999) to the EMBL/Genbank/DBJ databases.
RN [3]
RP SEQUENCE FROM N.A.
RA Pan G., Risser P., Mao W., Baldwin D.T., Zhong A.W., Yansura D.,
RA Lewis L., Eigenbrodt C., Henzle W.J., Vandlen R., Filvaroff E.;
"IL-1H, an interleukin-1-related protein that binds IL-18 receptor/IL-
1Rrp.";
RL Submitted (Apr-2000) to the EMBL/Genbank/DBJ databases.
DR EMBL: AF200496; AAF69252.1; -.
DR EMBL: AF167368; AAG29344.1; -.
DR EMBL: AF251118; AAG14420.1; -.
DR InterPro: IPR000975; -.
DR Pfam: PF00340; IL1; 1.

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DR PRINTS: PR00264; INTERLEUKIN1.
SQ SEQUENCE 218 AA; 24126 MW; 96E089310D2CEA68 CRC64;

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Query Match
Best Local Similarity 36.7%; Pred. No. 8.7e-10;
Matches 51; Conservative 21; Mismatches 56; Indels 11; Gaps 6;

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OY 9 FRMKDSALVLYLHNNQLAGLHAGKVIKGEISVYPNRMIDLASL---SPVILGYOGGS 65
DB 60 FSIHDDHVLVLDLSDGNLA--VPDKNYIRPELFFALASSLSASAEKSGPILIGVSKGE 117
OY 66 QCLSC--GVGQ-EPTLTLEPVNIMELYLAKES--KSFIFYRDMGLTSSFSAAYPGWF 120
DB 118 FCLYCDKDGQSHPSIQLKKEKIMKL-AAOKESARRPFIYRAOVGSWMLESAAHPGWF 176

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OY 121 LCTVPEADQPVRLTQLPEN 139
DB 177 ICTSCNCPNEPVGTDKFEN 195

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RESULT 15

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OQHBZ3 PRELIMINARY; PRT; 218 AA.
AC OQHBZ3;
DT 01-MAR-2001 (TREMBLrel. 16, Created)
DT 01-MAR-2001 (TREMBLrel. 16, Last sequence update)
DT 01-MAR-2001 (TREMBLrel. 16, Last annotation update)
DE INTERLEUKIN-1-RELATED PROTEIN LONG ISOFORM.
OS Homo sapiens (Human).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Primates; Catarrhini; Homiidae; Homo.
OX NCBI_TaxId=9606;
RN [1]
RP SEQUENCE FROM N.A.
RA Pan G., Risser P., Mao W., Baldwin D.T., Zhong A.W., Yansura D.,
RA Lewis L., Eigenbrodt C., Henzle W.J., Vandlen R., Filvaroff E.;
"IL-1H, an interleukin-1-related protein that binds IL-18 receptor/IL-
1Rrp.";
RL Submitted (Apr-2000) to the EMBL/Genbank/DBJ databases.
DR EMBL: AF251119; AAG14421.1; -.
SQ SEQUENCE 218 AA; 24138 MW; 76E09C35093DEA63 CRC64;

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Query Match
Best Local Similarity 36.7%; Pred. No. 8.7e-10;
Matches 51; Conservative 21; Mismatches 56; Indels 11; Gaps 6;

```

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OY 9 FRMKDSALVLYLHNNQLAGLHAGKVIKGEISVYPNRMIDLASL---SPVILGYOGGS 65
DB 60 FSIHDDHVLVLDLSDGNLA--VPDKNYIRPELFFALASSLSASAEKSGPILIGVSKGE 117
OY 66 QCLSC--GVGQ-EPTLTLEPVNIMELYLAKES--KSFIFYRDMGLTSSFSAAYPGWF 120
DB 118 FCLYCDKDGQSHPSIQLKKEKIMKL-AAOKESARRPFIYRAOVGSWMLESAAHPGWF 176
OY 121 LCTVPEADQPVRLTQLPEN 139
DB 177 ICTSCNCPNEPVGTDKFEN 195

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Search completed: June 25, 2001, 14:08:20
Job time: 157 sec

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